

REMARKS

ON THE

Canal or "Tigue" of Cartthagena,

NEW GRANADA,

AND ITS

NAVIGATION BY STEAM,

TO WHICH ARE ADDED

STATISTICAL, GEOGRAPHICAL AND OTHER REMARKS ON THE
VALLEY OF THE MAGDALENA AND NEW GRANADA
GENERALLY,

BY A COMMITTEE OF THE

New Granada Canal and Steam Navigation Company,
OF NEW YORK.



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REMARKS, &C.

In presenting the claims of the Company to the public, little more is required than to refer to the documents, extracts of which only we have been able to publish. Indeed, in considering the form in which it would be proper to present our ideas of the value and importance of this great enterprise, doubts were entertained, as to the propriety of abridging these valuable and interesting papers, involving the question, simply, whether we had any thing to say—whether others had not, indeed, said all that could be said; and that, too, in a more acceptable manner, and, apparently, with a more unquestionable authority. But it is found impracticable. Even the correspondence with the Company would constitute a large volume; interesting to the curious, to be sure, and full of instruction to the commercial world, but not adapted to our present object. We shall, therefore, endeavor to be as concise as possible, avoiding as much as we can, everything, except the plain *facts* and *figures*, upon which a sound business man would base a financial movement.

In order, however, to be fully understood, it will be necessary to present the interesting Country, in which the possessions of the Company are located, to the view.

There is probably less general information among our people, in relation to the physical and topographical character of New Granada, than of any other portion of the world of equal importance. New Granada, until very recently, has been, as it were, unexplored. Many reasons could be assigned for the fact that the inexhaustible wealth of New Granada, has been suffered to remain undeveloped. History will furnish the principal of them. Since the independence of New Granada, her people have been employed in the devastating work of rebellion, and revolution. The consequence has been an absolute retrograde movement. Magnificent cities still exist throughout the interior of New Granada, which indicate the value of her pro-

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ductive interests in former times, as well as the elegance of her ancient civilization, of which, although partly dilapidated by the hand of time and neglect, they are still in strength and remaining beauty, unquestionable monuments. But there has been no advancement. A bad government is only equalled, in hostility to agriculture, the arts and sciences, by no government at all. New Granada has suffered by both for the past generation. Those magnificent plantations which were worked by the Spanish Nobility, are still seen everywhere throughout the country. But the agriculture which sustained the splendor of the proprietors, has, to a great extent, died out. We will not enlarge upon the subject. It is sufficient for us to say, that a new life is being breathed into New Granada. A better government is in progress of being established, which, in fact, may be considered as good a government as our own, and but a short time will elapse before New Granada will again stand before the world as one of the wealthiest and most favored nations on the Globe. What has produced this sudden change of sentiment in New Granada can be stated, undoubtedly, in a few words. She has been brought under the vitalizing influence of the North American Republic. The war with Mexico, the purchase of part of its territory, the discovery of the gold, and subsequent rapid peopling of California, its organization into a State, the almost marvelous growth of San Francisco—all these events combined, and particularly the construction of the Panama Railroad, have “saxonized” New Granada. The two people, with similar sentiments as to government, with the same great ends to accomplish, are now travelling the same commercial road. Interest, the great peace maker, and the greatest pioneer in civilization, unites the two Republics. We will pause, simply to ask these questions:—What guarantee does this afford for the future government of New Granada? What promise does it furnish for the developement of the resources of that country? Any intelligent American can answer them without any amplification on our part. The experience of every young man, even, will tell him. The fresh steps of our own people, self-taken, and self-directed, every ten years past, will tell him. With these few general remarks, we will proceed to consider, where, and what is the Canal.

This Canal is located in the northerly portion of the province of Carthagera, in the Republic of New Granada, commencing at Pasa Caballo, in the port of Carthagera, at its southern extremity nine

miles from the city of that name. It strikes the Magdalena river at the town of Calamar. It is ninety-two miles long. We refer the reader to a sketch of this Canal, appendix, letter A. The opening of this Canal into the Bay of Carthagena should not be carelessly considered. The bay of Carthagena forms no inconsiderable item in the value of the Canal. It is acknowledged by the first geographical authorities to be one of the best harbors on the globe. It is said by Major Sears, and many others, to be second only to the bay of Naples. It is over nine miles long, and from one and a half to seven miles wide, and protected from the swell of the sea by a series of islands very similarly arranged to those comprising the harbor of New York. There is perhaps a difference in their relative positions. The city of Carthagena constitutes one of the islands. The others are Tierra Bomba and Barú. They are beautifully separated by two mouths or entrances into the harbor—Boca Grande, is only practicable for vessels of a light draft, having been blocked up by the Spaniards against the fleet of Admiral Vernon about a century and a half ago—and Boca Chica, which now forms the only entrance to the port, which is as easy of access at all seasons of the year, and in all weather, as the harbor of New York, to which it is, however, superior in point of perfect safety. For the truth of this position we again refer to Major Sears' statement. In relation to this gentleman, it is perhaps due to the reader to state, that his opinion is very reliable,—that he resided a long time in Carthagena—that he is a highly educated gentleman, of well known and appreciated talents, and that he is a Civil Engineer, formerly attached to the United States Navy in that capacity. Indeed it will be seen that the harbor of Carthagena is the only one, south of the mouth of the Atrato, which can in any way be relied upon. It is the natural and only useful and practicable terminus of the navigation of the Magdalena river. It is the only permanent depository of the commerce of that river. From the bay of Carthagena to Honda, which place is the head of the navigation of the Magdalena,—is a distance of over seven hundred miles. The river and canal open a territory of country, as we shall show, when we reach that point of the question, that will demand a shipping business, within twenty-five years, that can only be done in one of the most capacious harbors on the globe. The indispensableness of this harbor will appear more fully, when we come to describe the valley which the river traverses, and its present and prospective productions. In fact the value of our enter-

prise depends, perhaps, quite as much upon harbor facilities, as on any other one thing. In a work of this magnitude and permanency, this point is of indescribable value, and cannot be too strongly impressed on the attention of the reader. It will be observed, on reference to a map of the course of the Magdalena (appendix B.), that the river discharges itself in the Atlantic by numerous mouths. These are all impracticable, except one, called Barra Nueva, which, at times is so shallow, and is besides so exposed to the heavy surf that breaks along the whole of that coast, that vessels have either to put back to Santa Martha, or come to an anchor off the port (?) of Savanilla, in an open sea, and within a few fathoms of dangerous rocks.

The port of Savanilla, besides, is a mere lake, only navigable for small boats, except a narrow channel from its entrance to the Custom House, about a mile distant. We refer the reader to appendix F & J, for further information. It is therefore clear and unquestionable that the port of Carthagena, when once put in communication with the Magdalena by means of the canal, *must* become the only safe and reliable outlet of that river, not only on account of its perfect accessibility at all times, as we have stated, but as affording all the facilities for shipping and landing that can possibly be desired in any port. Let it be borne in mind that the canal abuts directly into it. The steamers which the company intend to put on the Canal will therefore take goods and passengers from the pier at Carthagena to Honda, without any transshipment, and the great expense and inconvenience attending the shipment and carriage of goods from Savanilla or Santa Martha will be avoided. On this head we refer to appendix F, being extracts from a pamphlet just published in this city, by Mr. John May, an Engineer of acknowledged talent and experience in New Granada.

We regret that conciseness will not permit us to refer more at length to this able pamphlet; but as it is in publication in this city, the reader may easily procure a copy.

The canal of Carthagena was made by the Spanish government nearly two centuries and a half ago. There exists in the "Bibliothèque Nationale" of Paris an autograph map of it, bearing date 1610. It appears, from other records, that the canal was used by the Spaniards, without any interruption, until the "War of Independence" broke out in the Vice Kingdom of Sante Fe, as the provin-

ees forming the subsequent Republic of Columbia (of which the present Republic of New Granada was a part), were then called.—The Spaniards, fully aware of the importance of that canal as a means of communication between the interior and the Atlantic coast, blocked it up, by throwing large stones at its entrance, at Barranquilla, in order to prevent the Columbians from using it, as they had done at Bocca Grande in the bay of Carthagena, against Admiral Vernon's squadron. There is no doubt that this stupendous work must have cost the Spanish government several millions of dollars, and the philanthropist, on viewing it, cannot but deplore the narrow and vandalic policy which caused it to become useless for nearly half a century. What a subject of keen meditation will it not be to the tyrants and oppressors of their country, when they shall see the citizens of free America, restoring that which one of their kindred governments once destroyed!

THE CANAL.

It will be seen that the canal of Carthagena passes through a series of lakes, and consists of cuts principally from lake to lake. These lakes are variable in depth. From Carthagena to Mahates, a distance of about forty-five miles, the canal is still navigable for small boats, and proportionable tolls are now being collected there by the company. Some ten years since, the Supreme Government of New Granada ceded this canal, with large tracts of land, to the provincial Government of Carthagena. The provincial Government expended over half a million of dollars in repairing it, and in making the "Totten cut," as it is called, which is the fifteen mile cut that enters the Magdalena river from the lake of Sanaguaires. The canal was then used, in its whole extent, for about two years when, from neglect, it became again obstructed, and has continued in that state until it was sold to Mr. Henry Vendryes, one of the Directors of the company. The charter of this company and the deed from the government of Carthagena to Mr. Vendryes, will be seen under letters C and D of the appendix. This company got their title from Mr. Vendryes. The canal is now in their possession, with all its titles to lands and all its possessions and privileges, and Mr. Vendryes is the resident Director and Superintendent in New Granada. Such is the history, in brief terms, of the canal. It will be seen that it is a work of millions of dollars, and is worth, as we shall show in its proper place, millions. We

also refer to an extract from Raphael Nunes' book, letter E, as to this point.

TITLE.

The New Granada Canal and Steam Navigation Company have the possession of the Canal or Dique for the period of sixty years, in pursuance of the contract passed between Mr. Vendryes and the government of the province of Carthagena, to which, as hereafter stated, is attached the exclusive privilege of navigating the canal by steam, for the same period of sixty years. The lands belonging to the canal are also ceded. They are now in process of survey. It is impossible to state their extent. They are being mapped, and the possessions ere long will come before the world in proper form. Sufficient, however, is traced out to warrant the company in stating, that they are the owners of thousands of acres lying along the canal from Calamar to its mouth.

WHAT WILL ITS COMPLETION COST?

We have shown where the canal is—that, in proper order, it must command the whole commerce of the river, as being its safest and natural outlet into the Atlantic, through the port of Carthagena, and that no competition can therefore exist against it.

What now will it cost to put it in order? A glance at the map of the canal will show this. It may be said that the whole of the space between the entrance of the canal into the bay of Carthagena, at Pasa Caballo and its junction with Colonel Totten's cut, at the Cienega of San Aguares, consists entirely of a series of cuts made by the Spaniards, which, in process of time, have become a natural branch of the river. Little canalizing will be required through the whole of that space, except at San Estanislao, which, as it is the intention of the company to do away entirely with the locks at Sanaguaires and Calamar, must be protected against the inroads of the canal. With respect to Tottens' cut, as the new or artificial canal from Sanaguaires to Calamar is called, it will, as we have stated, form the principal and more expensive item in the expenditure on the canal; the banks having fallen in, in some places, and the space occupied by the locks at Calamar, requiring to be filled up and brought in a line with the rest of the cut. As to the cost of the work to be

done through the extent of the canal, if the money expended under the provincial government of Carthagená by Col. Totten would enable us to come to an estimate, the canal must have originally cost several millions of dollars, from which it might be inferred that a considerable sum will be required to repair it and put it in navigable order. We do not entertain such an apprehension.

The lakes, as we have mentioned, were cleaned out some few years since; sandbars and snags removed, so as to render a free navigation in the dry season. A gentleman, Mr. Towsley, was requested by the company to give his opinion on the Canal, being about to visit it on his way to Bogota, and he has reported, that there is, with a few exceptions, a fine body of water varying from seven to twenty-two feet in the canal. We refer to an extract from his letter, marked F. There is an inference, which we pause *here* to present to the reader's mind, arising from this stupendous work. It is that the value of the commerce of New Granada to the Spanish crown must have induced this splendid movement of Castillian energy; nor is this the only monument erected to commemorate the glory of New Granada. Her cities speak a language full of instruction. Carthagená, while millions were expended to bring out her gold and the products of her prolific soil, was surrounded by a walled fortification at the cost, it is stated by historians, of one hundred and eighty millions of dollars, which was intended to cover and protect her internal trade, and works of internal improvement, the large cities all through the interior, formerly communicating through this channel, with other nations, are also witnesses that testify to the same point. How did they, too, rise into importance? By the same law of trade, that made it necessary to lead the waters of the Magdalena to the bay of Carthagená.

Before we close the subject, however, we are induced to answer an enquiry, which would naturally arise in the reader's mind. It is this. How is it, that a company organized in New York, can become the owners of this magnificent canal? We will answer it, by asking another.—How did it come about that Michigan, after expending millions on her Central road, should absolutely give it away to the present company? We have cases like this at home. Governments never did manage this kind of business well, and probably never will. And how is it, that Pennsylvania has offered to sell her works of internal improvement to private companies?

The company have made an accurate estimate of the necessary amount of money to put this canal in a good state of navigation. They have sent one of their own men upon the canal; one in whose sound judgement, and practical experience, they can confide. From information received from him, and from the estimates of Colonel Totten and Colonel Trautwine of Philadelphia, and Governor Raphael Nunes, they have established the amount required at \$150,000. This sum will no doubt be amply sufficient. The entire equipment and furnishing of the canal, is estimated to require \$150,000 more, making in all \$300,000. This sum includes a margin of 20 per cent., which prudence and experience demand, should be calculated on in an enterprise of this character. The equipment is intended to comprise six steamers from 200 to 600 tons burden, adapted to the trade of the river and canal. So that, in looking at the estimated income now made prospectively by the company, distinct from the general tolls of the canal, which are estimated, in the report of Mr. Henry Vendryes, at one-third of the receipts of the steamers, we can reasonably conclude upon an annual receipt of upwards of five hundred thousand dollars, after the canal shall have been put in navigable order, which, we trust, through our exertions, may be accomplished during the ensuing year. As to the navigation of the river, its safety and reliability, it is necessary for us to speak in this place.

We have given under letter L, the minute statement of Mr. Henry Donahue, late of this city, who speaks not only intelligently, but from authority and an experience of over two years, constantly on the river, as the Engineer of the steamer New Granada. The Magdalena is, beyond doubt, one of the finest rivers in the world, in this respect, as reliable in point of water as the Mississippi, and incalculably superior in point of safety. We refer also, on this point, to Mr. May's pamphlet.

INCOME OF THE CANAL.

The capital stock of the Canal company is \$2,000,000. We present the following table, as furnishing some reason for our confidence that it will pay a handsome dividend on that sum. This table has been prepared after the most careful examination; after consulting gentlemen of the best experience in the trade of the river.

ESTIMATE OF REVENUE.

40,000 "Cargas" per Annum (being Col. Totten's estimate, at \$6 per carga.....)	\$240,000
500 Passengers (Col. Tottens estimate), at \$80.....	40,000
Postal contract now paid by Government to Carthagena	10,000
Carrying specie for government (as per Col. Tottens statement), \$2,400,000 at 1 per cent.....	24,000
Tolls received on Canal at 1 per cent. per annum on \$20,-127,332 value, instead of the heavy toll dues fixed by law as per Gov. Nunes' statement, (see appendix E)	201,273
	<hr/> \$515,273

EXPENSES.

Amount expense running one boat as per Col. Tottens estimate \$23,500. Say \$30,000. Three boats....	90,000
The fourth boat being in reserve, is covered by the extra allowance.....	
Annual estimate of keeping canal in repair (per Col. Tottens estimate).....	30,000
	<hr/> 112,000
Net annual revenue.....	<hr/> \$403,273

The above estimate is undoubtedly a safe one. By this it will not be regarded as improper to say that the company can lay up yearly a reserve fund of \$100,000, a contingent fund of \$100,000 more, and declare a dividend semi-annually on the stock of the company of 6 to 7 per cent.

This statement is but a compilation from a more lengthy estimate made by Col. Totten, late engineer of the Panama Railroad, for our President Mr. Henry Wells. Col. Totten is well known to the public. He is decidedly at the head of his profession. There is no business man of any considerable standing in this country, or in the whole range of the commercial world, but who is familiar with his fame. We have also been aided by the estimates of Col. May, the Civil Engineer of New Granada. The calculations of Mr. Henry Vendryes are, to a great extent, based upon the pamphlet of Gov. Nunes, a copy of which, almost entire, we have deemed proper to publish with this work. We are happy to refer to that pamphlet, which is certainly a masterly exposé of the resources of New Granada; full of valuable statistics, and written in a highly pleasing and acceptable style. At the same time that we recommend the reader to peruse it carefully, we deem it proper to observe that it was written three years before Mr. Vendryes obtained his contract, and we have the pleasure of stat-

ing that the patriotic and praiseworthy efforts of its author, have been rewarded by his election to the important post of Governor of the province of Carthagena, in which capacity we feel confident we can rely on his influence and valuable assistance.

THE CLIMATE, RESOURCES, AND TOPOGRAPHICAL CHARACTER OF THE VALLEY OF THE MAGDALENA.

We have, in a hasty manner, endeavored to furnish the reader with the facts which authorize our assertion, that the canal is the only outlet of this valley; that its treasure must reach the great markets of the world through it; that it is, from its natural advantages and geographical position, the permanent channel for its commerce, against which no other can exist. We have shown in our estimate, taken from the very best authority, what may be considered the value of the present trade to the New Granada Company. But it does not seem to us that it could be satisfactory to leave this subject without some remarks upon the general resources of the valley: while a reference is made to the work, we cannot refrain from inserting in this place an extract from a "*Mémoire sur la colonisation de la Province de Carthagène, dans la Nouvelle Grenade*," written by our colleague and resident Director, Mr. H. Vendryes, a gentleman, who, from his long intercourse with, and several years residence in, New Granada, is a high authority on this interesting subject.

"The soil, all along the canal, and on the borders of the Magdalena, is remarkably rich and fertile. The climate is mild, and very rarely disturbed by those tempests, which, in other portions of the Republic, frequently occur. The heat, during the summer, that is, from June to October, is from 75° to 85°, Fahrenheit, and during the other months, from 60° to 72°. Carthagena is almost constantly refreshed by a north wind, which, coming from the Gulf of Mexico, extends its beneficial influence as far as Calamar. The whole of the country which borders on the Canal, is, besides, refreshed at sun-set, and during the night, by the land winds, so delightful in tropical countries, or by an abundant dew, which supplies the want of rain, and neutralises the effect of the heat, during the summer months.

The yellow fever has but seldom made its appearance in Carthagena, and in the whole extent of the coast of New Granada. From Rio

Hacha, to the Gulf of Darien, at a distance of a few leagues from the sea shore, that malady is, as it were, unknown. In fact, there exists in the province of Carthagena, which the canal traverses, no disease or malady, of an endemic character.

The principal productions of the country are sugar-cane and coffee. Both these are, at present, cultivated to a small extent. But, although the sugar and coffee hitherto produced, are of an inferior quality, from a deficiency of proper machinery for manufacturing them, it is easy to judge of what they might to be brought to, under proper cultivation. The whole country is most admirably adapted to the sugar-cane and coffee tree. There is an indigenous plant, called the "Cafetillo," or "Yierba edionda," which grows in great abundance, particularly in the low lands and along the canal. This plant requires no cultivation. The seed, which resembles much the flax-seed, but is larger, is dried for a few days in the sun, and roasted and prepared in infusion, in the same way as the coffee berry, to which it forms an agreeable and highly aromatic addition, in equal parts.—This, when brought into market, will entirely supersede the "chicory," which, I have no doubt, among the grocers of Europe, forms, at least one half of the deleterious stuff they sell under the name of coffee. I have no doubt, also, that this article would, by calling the attention of the people of New Granada to it, become a valuable item of exportation from that country.

Rice is very abundant. A better mode of cultivation, and the proper machinery for its preparation, would make the New Granada rice equal (if not superior in taste), to the Carolina. This article, together with the great corn, constitutes the principal food of the people. It could be exported in quantities to supply all the West India Islands and adjacent countries. Even in its present limited cultivation, it forms one of the principal articles of export from New Granada.

Corn is one of the principal articles of food and exportation. The corn of New Granada, is, in quality, between the white corn of the United States, and the flint corn of the West India Islands, and contains more farinaceous food than both of those. I think I can safely say, that the corn of New Granada, with proper shelling machines, will be *the finest corn in the world*. From the nature of the country, particularly along the Canal, it may be said that the whole extent of it can be formed into a corn field.

Tobacco. This article has made, within the last five years, rapid and successful strides. The tobacco lately put in cultivation on the lands bordering on the Canal, has proved to be inferior to none ever produced in any country. The ‘Ambalema,’ ‘Giron,’ and other tobaccos of New Granada are too well known in the commercial world, to need any observations from me. This article, like the many other productions of New Granada, has suffered, in its exportation, from the want of that proper spur and encouragement, which can only be imparted to them by proper, safe, and expeditious means of conveyance from their native soil to ports of exportation, a desideratum which the projected canal will amply supply.

Cotton. It has been remarked, that wherever tobacco prospers, cotton has its congenial growth. This applies particularly to New Granada. Until the present day, cotton has been looked upon, in that country, as an article of secondary importance; but from late observations, it has been ascertained, that the cotton of New Granada is of a beautiful texture, and from the peculiar adaptation of the soil to its cultivation, might be made an important item of exportation. The cotton of the province of Valle Dumar, whose soil and climate are similar to those of the country which is watered by the canal, has been pronounced equal to the “sea island.” I may here observe, that from a late patent taken out in Europe, for the manufacture of cotton seed into oil for burning, candles, soap and food for horses and cattle, a great demand is likely to spring up for those seeds, which have hitherto been thrown away as useless.

Caoutchouc or india-rubber. The tree from which this gum is extracted, by incision, is abundant all along the canal and river, and the article will be supplied in *any* quantities, when the canal is opened, and the *right bank* of the Magdalena, hitherto so much neglected, shall be put in requisition for its valuable productions, of which Kino, Caoutchouc, and Cacao will form the most prominent part. The quality of the New Granada Caoutchouc has been acknowledged as the finest in the market.

Kino. This is an article of high importance. The kino of New Granada, although, perhaps, inferior to the Peruvian bark of former days, is nevertheless of good quality. Large quantities are now imported to Europe, for the manufacture of the “Sulphate of Quinine.” The country in the interior is covered with the kino tree.

Cacao. This has been neglected on the left bank of the river, although it is known that the cacao of the Magdalena is not inferior to the far-famed "Venezuela." I can only attribute that neglect to the causes to which I have ascribed the almost total abandonment of cotton and other productions,—the want of internal communications throughout the country. I have no hesitation in stating, that there is perhaps no soil better adapted to the cultivation of cacao than that of New Granada.

Dividivi. This article, which is the dry pod of a species of wild tamarind, has assumed a great importance, as tannin, in the leather manufactories of Europe and America. It is considered superior to oak-bark, being, besides, much cheaper. The dividivi tree grows in great abundance, in all parts of New Granada, and along the banks of the canal. It requires no cultivation.

Guaco. This is a runner of thick growth, and only lately brought to the notice of foreigners, as a specific against all sort of poisons, and in the cure of the cholera. The extract from the juice of the stem and leaves, has proved to be highly tonic, alterative, and anti-spasmodic. There are many popular accounts of its virtues, which one might be induced to look upon as fabulous. I have obtained the most remarkable effects from an infusion of guaco, during the cholera which visited Jamaica, in 1850. It is now generally believed, that when the use of this most valuable plant shall be more extensively adopted, it will entirely supersede the sarsaparilla. The banks of the canal and of the Magdalena, and other rivers of New Granada, are covered with it. The leaves and stem only are used. They are dried in the sun for several days, and are then fit for exportation, in open bales.—The extract is prepared, as that of other similar plants, from the triturated leaves and stem in a fresh state.

The Plantain tree. This is so well known, as producing one of the most abundant articles of food under the tropics, that it is unnecessary for me to say much on that head, except that no where is it more prolific than in New Granada, where it is quite common to meet with Bunches of Plantains with 200 to 250 fruit. I should not have included the plantain tree in the category of productions of New Granada, as it does not form an item in its exports were it not that its fibres have been, within the last few years, used in the manufacture of paper, for which purpose, several companies have been formed in Europe, and in the United States. This, I am confident, will

shortly become an important article of exportation. Its preparation for commerce, is trifling, and as to quantities, New Granada may be said to be a vast field of plantain trees.

Dye-woods. The baziletto, logwood, and others, not yet brought to the notice of strangers, are abundant in New Granada.

Timbers and Fancy-woods. Of the former there are several species, incorruptible in earth and water, and admirably suited for spars and for ship and other buildings, all abundant, and of easy access, along the bank of the canal and river. Of the latter, I shall particularly notice the cedar, ebony, santa-maria, and mahogany. The cedar of New Granada, is equalled no where. There is a species of it, which, in closeness of grain, solidity, and the beauty of its golden and blood-colored veins, exceeds any cedar hitherto known. The ebony is of a magnificent chocolate black, and so hard that I have seen slabs of it, highly polished, resembling marble.

Farinaceous and bulbous plants. There is an abundance of these in New Granada, from which several articles of export are made, such as the yuca, tapioca, and others. The Carthagen starch is well known as superior to even the Poland.

It would require more than the limits of this Memoir to enumerate the endless quantity of valuable natural productions found in New Granada. Indeed, they would form, by themselves, the subject of a voluminous pamphlet. Many of these have either shared the fate of the others to which I have alluded—oblivion and neglect—or have not, as yet, been sufficiently known, to be appreciated. I cannot, however, pass under silence, among others—the tonquin bean, the canela-alba, the cedron, which produces a nut, likely to become in a short time, a standard drug, in all Pharmacopœia, for its astonishing powers as a febrifuge and anthelmintic,—a species of parasytes, which, after being softened down in water, and dried, forms an excellent substitute for horse hair, for cushions and mattresses—the balsam of tolu, now so well known—the Palma Christi, which produces a nut, from which is extracted the “Castor oil,” vulgarly termed—in a word, an immense quantity of fibrous plants, which furnish a cheap and abundant material for all sorts of cordage and textures.

The canal of Carthagen, being, as I have said, a branch of the river, its waters are soft and pleasant to the taste, and, even during the heat of the day, of an icy coolness.”

It is, however, proper here to state that this valley is not surpassed by any portion of the globe, in point of fertility of soil, while we venture the assertion, that it is no where equalled in variety of products. Upon it this canal depends for support. To it, the canal is the grand artery. For the trade on its outlines and borders competition *can* exist; but within its wings *no* competition can *live*. The Magdalena valley not only comprises the immediate dependences upon its waters, but its various tributaries; among which, probably, the most important is the Cauca. It will be seen by reference to the map, that the Magdalena river takes its rise in the eastern Cordillera. It is navigable for steam boats as far as Honda, a distance, as we have before stated, of about seven hundred miles above Calamar. The valley of the Cauca is separated from this valley by the Central Cordillera, and is flanked on the east, by the Cordillera occidental, or western Cordillera. The central Cordillera melts into beautiful savannas, about latitude 7° , north. The Cauca is also navigable a distance of not far from a hundred miles, by the same class of steam-boats that traverse the waters of the Magdalena, into which it enters. The cities of Antioquia and Medellin, in the province of Cauca, communicate with the Ocean by this river. These cities we shall speak of hereafter. From the rich alluvial banks of these rivers, up the various spurs of the Andes, every variety of climate on the globe, with its indigenous plants, shrubs and trees are unfolded. In fact, it may be said, that from the city of Carthagena to Bogota, and from the banks of these rivers, wherever they are, into the interior, is a succession of table lands, of the richest soil, until you reach the region of perpetual snow. A climate vigorous and rugged enough for the native of Maine, is furnished to his choice.

We have been industrious in collecting facts on this subject, and have been agreeably disappointed at the result of our researches. There is no doubt but that the climate of New Granada, as a whole, is far superior to the climate of the United States, as a whole. It would be very narrow minded, indeed, to judge of the climate of this country by the city of New Orleans, or the lower valley of the Mississippi. It would be equally ungenerous to pronounce judgement upon New Granada, from the unhealthy climate of the Isthmus of Panama, both countries having very unhealthy localities. It is in both cases to local causes alone that may be attributed the deadly maladies which ren-

der life so precarious. Nor are the extremes of heat and cold either in the torrid or frigid zones so much the enemies of human life, as fickleness, and rapid changes of temperature. In fact it will be found that the tables of longevity furnish a large balance in favor of warm climates. This, however, no doubt, comes from the fact that as we approach the tropics, we escape from subjection to sudden changes, a fact particularly remarkable with respect to New Granada, and especially the valley of the Magdalena.

The province of Carthagená will serve to illustrate our views. In the "Memoir of the Physical and Political Geography of New Granada," by General T. C. Mosquera, a work of merit, and evincing much learning, the province of Carthagená is regarded as below the average of the New Granadian provinces in salubrity of climate. The mean temperature of the city is 86° Fahr. This is the mean temperature of the lower provinces, generally; the warmest portion of New Granada. It is $86^{\circ} 36'$ at Mompoz, a city on the Magdalena, 90 miles above Calamar; 84° Fahr., at Barranquilla, a city on the river sixty miles below Calamar; at Honda 82° Fahr., a town at the head of navigation on the river. So that $86^{\circ} 36'$ is unquestionably the mean temperature of the warmest town in the Valley.

We have somewhere in our remarks spoken of the unvarying climate of New Granada. Above or below the mean standard, there is no place in the valley of the Magdalena, where the variation exceeds 10° Fahr. It is an even, perpetual, summer. It will readily be seen from this, that we are at home, in our own climate, exposed to more intense heat, than in the province of Carthagená. The high temperature of the tropical climates is no objection to a northern man, all else being equal. Two indispensable requisites in all climates of the world are necessary to health—good water, and pure air. It makes no difference whether you have twelve, six, or three months summer. The aggregate of mortality, whether on the banks of the Mississippi, or Magdalena, will be in proportion to the ability of the constitution of man to resist the poison in the two elements.

We here speak, of course, of what, for a better term, we shall call a malarious climate, and mortality from endemic causes. In the three months summer, the generation of poison in a rich alluvial country, goes rapidly on, and the habits of life during the period of the year when the earth locks up her deadly weapons, disarms the constitution, and renders it an easier victim. The valley of the Magdalena,

and the province of Carthagena, must be looked upon, as healthy or unhealthy, like the Ohio or Mississippi, according to local causes. The city of Carthagena, however, is unquestionably one of the healthiest cities in the world. Local causes combine to make it so. It is on an island, in the sea, and as to the coast is a promontory. The prevailing coast-winds sweep the city clear of every thing like noxious vapors, and give vitality and buoyancy to the atmosphere. It will furnish a pleasant residence for the people of this country, engaged in enterprises in this valley. The entire promontory is occupied by the city, its massive granite walls are washed in its whole circumference, by the waves of the ocean. The language of Major Sears, is but the expression of every one that has visited this beautiful city. He says:—"I consider the climate of Carthagena perfectly healthy. My family were with me a large portion of the time. All were perfectly healthy. I went to New Granada a confirmed invalid, with Dysentery. I returned to New York perfectly well. I found the interior of the country healthy, superior as a general thing to the States." We cannot of course give testimonials from all. There is but one opinion on the subject. The company have been careful to look into the matter, as being one in which their interests must be more or less involved.

In Mr. Towsley's letter, dated Carthagena, April 11th, 1855, he uses the following language. "Carthagena, at present, is very healthy. It is now, the dry season. The wet season will commence in about one month. We shall then have some fevers. But Carthagena is usually very healthy. I have no fears from the climate. The entire country, from this place to Bogota, is as healthy as any of our Middle States, and the climate of Bogota, I am assured, is not excelled by any in the world." Under date Barranquilla, April 29, he says, "the climate in this country, is as good, as in any of the States of our Union."

In a letter from him, received at this moment, dated at Nare, high up the Magdalena, he uses the following language:—"There is a world of wealth to be obtained from this country, if enterprising men will remain here long enough to perfect a system of business, I believe, from observation, and the most reliable sources of information, within my reach, that the mineral resources of New Granada will equal, if not surpass, any other equal area of territory of the known world. Gold, silver, copper, iron, and lead, are to be

found in great abundance. A few days since, while stopping to wood up, I followed a path, about one-half of a mile into the forest, where I found a beautiful boiling *hot* spring, the water of which is strongly impregnated with white sulphur. A quarter of a mile further on, is a valuable *spring* or *mine* of *pitch*, so pure and so abundant, to all appearances, that it would make a cheap fuel, for steamboat purposes."

"I take my gun, and go into the woods, every time we stop for wood, &c., and, after having travelled through all but two of the States of our Union, and, I trust, have been a somewhat careful observer of the climates, soils, and timbers of the States, I may be considered competent to judge of the comparative character and natural resources of this country, so far as I have seen it. For variety, beauty, quantity, and size of the timber, of this country, I have never seen it equalled, and for richness of soil, and luxurious vegetation, I doubt if any part of the world, can surpass it. As for climate, the emigrant may find, within a few miles, the degree of temperature that he desires, and a leading characteristic in any given locality is its uniformity of temperature, varying in a whole year, not more than from 12 to 26 degs. Rice, tobacco, cotton and sugar cane grow without cultivation, in great quantities. The soil is adapted to the cultivation of all the tropical fruits. The grains, and productions of the Northern and Middle States, may be, and are, cultivated here with success. I have seen the orange, banana, pine-apple, mango, lemon, plantain, cocoa, and cocoa-nut growing luxuriously in the valley, and six miles further upon the hill-side, the apple of the North, the peach, plumb, pear, and melons flourish as well as the fruits in the Middle States. You may locate where the thermometer ranges from 76 to 94° the entire year, and yet be in sight of mountains that are covered with perpetual snow. In the higher latitudes, the climate is as uniform in temperature, as in the valley."

"The dress of the natives is a single garment of calico or muslin, and of the children, until about ten years old, is that of Adam in the garden. I doubt not, there are children in this country, ten years old, that have not cost their parents, for food, clothing, and contingencies, \$10 each. This is, indeed, a wonderful country. The Republic of New Granada is composed of thirty-five separate provinces, each having its Governor. The President and Governors are elected for four years. Members of Congress, for two years. All male citizens of twenty-one years are entitled to vote. The govern-

ment and laws are exceedingly *Democratic*, placing all persons upon terms of perfect equality. The Constitution and primary laws of the Republic and provinces, are copied from the Constitutions, &c., of our free States."

"The population of the country is about 3,000,000. A leading member of the New Granada government, a few days since, proposed to me this question Why, is not New Granada, with a liberal government and laws like the United States, as prosperous as the United States? I told him that there could be but one answer to his question And, that simply, you are not Americans. Nature has done more for you, than for us, but you will not improve your agricultural resources, which would be worth more to you, than mountains of solid gold. We cultivate the soil, we improve our industrial resources, we foster institutions of morality, and universal education. Sir, you must *imitate all our virtues*, and you will prosper like the United States. Sir, could I transfer to this country, 10,000 live Yankees, with their principles of economy, their sterling worth, their industry, their enterprise and intelligence, this country would flourish beyond your conception, and be the garden of the world, and excite the admiration and wonder of the civilized world."

GOLD.

Intimately connected with the interests of the canal, is the golden and other mineral resources of the valley of the Magdalena. We propose, therefore, to allude merely to the mineral wealth of this section of the country. It will be seen by a reference to Gov. Nunes' work, before spoken of, that the valley of the Cauca, Rio Negro, and other tributaries of the Magdalena, are now producing several millions of gold annually. It is said by Gov. Nunes, upon a compilation made by him, that in 1851, the gold from the mines of the province of Antioquia alone, could not be less than two millions of dollars. This estimate, however, includes the gold from the mines, and does not include the washings from the Rivers. No estimate can be made of the latter.

The province of Antioquia, however, is no richer in gold than the province of Ocaña. The mines of Betas and Montoza are known as among the richest in gold and silver, in the world. It can be safely said, that the yield of gold from the mines and washings,

which finds a market by the valley of the Magdalena, is not less than six millions of dollars per annum!! When the reader brings to his mind the character of the inhabitants of New Granada, he will be satisfied from this fact alone, that the gold of New Granada is inexhaustible. The truth is, there has been no inducement for the people to labor to produce gold. They live in a luxurious climate, their wants easily supplied, and the ambition to amass riches entirely unknown. It is said by those who have travelled over the country, that when a desire to purchase anything is created in the breasts of the inhabitants, on the banks of the Rio Negro, Cauca, Porce, Nehi, and other golden streams, they resort to the river, and with shells and other simple instruments, bring out dust enough to supply their wants, and sit down contented. Will the reader please turn to the statements of Mr. Donohue and Major Sears. We publish these, simply, because it is convenient to do so, not because we have not an abundance more of the same kind of proof.

This is the kind of *labor* that produces from this valley the annual sum of six millions of dollars!! Apply to these rivers the energy we have shown in the mines of California, and what would be the result? What must be the wealth in the sands of those rivers? When we consider that the enormous sums now going down the river, are the aggregate of the washings of turtle-shells in the hands of the untutored inhabitants of the country; when we consider that their labor is the effect of chance, rather than an intellectual purpose, what would be the amount produced from this source, by northern skill and enterprise!!

This reflection would induce one to endorse the assertions of Maj. Sears. It was, "that there is ten times the gold in New Granada, that there is in California! That there is gold enough in New Granada to supply the wants of the world!!" We cannot refrain from a little prevision on this subject. We will suppose the canal completed, our steamers (one of the fleet is now passing over the sea, to New Granada), plying up the river to Honda, inspiring our citizens to tread the new path of progress, by the unfurled banner of their country—so dear to the heart of every American—will not the glittering invitation again be answered, as it was in the case of California, by an immigration of hundreds of thousands of our people, and a return of gold dust of at least twice that which we received from there? We

venture the assertion. In our mind, there can be no doubt on the subject. The reasons for these assertions, are these :

1st. It is not half the distance to the gold regions of New Granada that it is to California, it being only eighteen hundred miles to New Granada, by a splendid conveyance. And on opening the canal, our boats will land their passengers on the very ground.

2nd. From the very best authorities that can be consulted, to wit : intelligent mineralogists, who have visited both countries, there is an incalculable superiority in favor of New Granada, both in point of quantity and quality of gold.

3d. New Granada is very far superior to California, in point of salubrity of climate. The guarantee of health to the laboring man, is an item of great value. The sections of the country, where these washings of gold are found, in general, are blessed with the sweetest climate known on earth. We shall especially notice this fact in connection with the subject of emigration.

4th. The expense of living, will not be more than one-tenth of what it is, and always must be in California. This is owing, very much, to the already semi-advanced state of agriculture, now existing in New Granada ; to the even temperature of the climate ; to the fact, that the substantials of life are produced side by side with the gold—climate depending almost entirely upon altitude, instead of latitude, thereby bringing the productions of all the latitudes on the globe, within the compass, perhaps, of a few miles.

5th. Gold can, and always will be produced at one-tenth the cost of producing gold in California. Every man that went to California, was compelled to be satisfied with the productions of his own labor, (at least this in general is true). He could not tax the sinews of others less intellectual than himself. It was sinew only, not mind. The golden regions were, and are, to a great extent, now inhabited by tribes of savage Indians, while on the very banks of the golden streams of New Granada, is an inhabitancy of an inoffensive, amiable christian people—a people, taught by their rulers to imitate us in all that they can. A people that do *not* work, simply because *no ruling Saxon mind is among them*, to marshal them quietly into order and system. Experience, however, proves that they are good laborers, when blessed with such a discipline—so says Col. Totten, Capt. Robinson, Maj. Sears, and others.

6th. A *home* can be found in New Granada. The Californian, separated from his family, left his home, his wife, his children behind, for gold. All can safely go to New Granada. With *home* on the golden sands of the rivers, what limit will any one fix to Northern energy, quickened by the glittering promise of speedy pecuniary independence? Gold is taken out of California, in spite of personal privations of the severest character; in spite too, of the tomahawk and scalping-knife of a savage enemy. With peace, plenty, a home, a healthy climate, and with a four fold better return for labor, will not New Granada, when understood, be peopled as rapidly as California? It certainly will follow immediately the opening of the canal, and the permanent foothold of this American company. It will follow, because, this enterprise is an American enterprise, and carries with it, what cannot be got in any other part of the world—the genius of a free people. It will follow, because our destiny is known, as a reliable fact, and progress, with us, is accompanied with not only freedom, but agriculture, the arts, the sciences, and all the blessings of the highest civilization. It is enough to know, simply, that Americans are there. No reaction, no retrograde movement clouds their history. Their advanced foot-steps are guided by inspiration. In case our positions above assumed are correct, what will the stock of this canal be worth? The passage money alone, we can estimate only by standing on the pier, when the California steamers leave on their outward-bound trip.

We in conclusion, refer the reader to the extract from Homan's Bankers' Magazine in the appendix, and also to the statements of Maj. Sears and Mr. Donohue.

EMIGRATION.

No part of the globe holds out to the emigrant the promises that New Granada does. When this beautiful country is brought to the knowledge of those who desire, for a small amount of money, to obtain a good home, and its independence, its table lands, and hill sides will be speedily covered with finely cultivated farms and thriving villages. This is to take place soon, if the signs of the times are rightly read. The spell that held South America for so long a time in gloom, and covered her with darkness, is broken. We now already stretch across her our strong iron arms. Her slumbering population that have been so long separated from the rest of the world, will be soon aroused by the

hammer of our ingenious mechanics. We should be very happy, if we could afford it, to indulge in the luxury of spreading out in rapturous style, the various beauties of this interesting country. It would be a pleasure to paint the hillsides, with the climate and productions of the whole earth upon them,—at one glance, to unfold at the base, the cotton in the bloom, the orange groves and the pine-apple, all filling the atmosphere with their fragrance, while, at the same time, could be seen the products of the Middle States of our Union—the peach orchards and the hardy apple of the North, with the wheat, potatoes, and all our northern cereal plants. But this is no place for poetry, and therefore we must dismiss the muse.

We allege that New Granada furnishes a higher promise to the agriculturists, than any other portion of the earth. Let us be distinctly understood on this subject, as it is one of universal interest. We take the following positions.

1st. We have spoken of the valley of this country, and we have said that climate is to a very great extent, perhaps principally, at least so far as relates to heat and cold, dependent upon altitude, instead of latitude. Upon the Cordilleras, every where are immense level plains—plain after plain, one above the other. It is these plains to which we desire to bring the reader's mind. In those provinces, the outlet of the produce of which is the Magdalena, are the table-lands of Cauca, Ocaña, Antioquia and Bogota. The whole of New Granada, is characterised by the same kind of table-lands. In speaking of the soils of the province of Cauca—and he states that the same will apply to the other territories—Gen Mosquera, in his work before referred to, says that these table-lands are of inexhaustible fertility.

2nd. The climate renders cultivation more profitable than any where else, while the market is equally as good and contiguous to the producer. We will take the article of wheat. It is a known and acknowledged fact, that the wheat crop, in a large portion of New Granada, is much more reliable than in any part of this Union, and produces a larger harvest to the acre. It is also well known, that the inhabitants of the Magdalena valley, are supplied with wheat from the inhabitants on those plains, where the temperature ranges from 55° to 65° Fahr. It will be seen at once, that this temperature is most excellent for the growth of wheat, while it will be remembered that this is the standard temperature

during the year. Hence, the crop is not exposed, as it is with us, to the severe ordeal of our Winters. All that is necessary, is skill in cultivating and in milling, to produce as good flour in New Granada, as is made in any country. Hence, cropping is carried on at much less expense. As to a market, their surplus would always find one at Carthagena. In fact, in all the breadstuffs the city of Carthagena would stand in the same relation to these internal products, that New York city does to the Western States.

3d. The salubrity of the climate, is of course, of the first importance, to the emigrant. With a soil equal to the valley of the Mississippi; with a market equally as good, a climate is offered of unsurpassing excellence. Health is doubly sure. It is said by Gen. Mosquera, and in fact by every one conversant with this country, that the congestive and general billious fevers, which prevail in the valley of the Mississippi, are there unknown. In fact, the temperament of the natives of this country sufficiently sustains this assertion. They, upon the plains, are a beautiful healthy color, while the saffron hue of the inhabitants of the valley of the Mississippi tells a sad and mournful history of their sufferings.

4th. The emigrant enters upon a country already sufficiently inhabited, to furnish him with the pleasing associations which add so much to the happiness of life. The city of Bogota, in the province of Cundinamarca, contains a population of about fifty thousand. It is the seat of literature of New Granada, It is celebrated throughout the world, for the extraordinary sweetness of its climate, and for the polished and highly refined character of its inhabitants. Medellin, in the province of Antioquia, contains a population of over forty thousand. It is situated on a plain, about sixty miles from the navigable waters of the Cauca, which the reader will recollect is a tributary of the Magdalena. The city of Ocana, is also on a plain, in the province of that name, about fifty miles from the navigable waters of the Magdalena. It contains a population of over twenty thousand.—The altitude of the plains on which these delightful cities are located ranges from 7,000 to 9,000 feet above the level of the sea. By the liberal policy of the government of New Granada, the emigrant is entitled to 160 acres of beautiful plains of land, to his choice, upon his settling on and entering his claim for the same. No one need portray the hardships encountered by the first settlers in our western country. Their tale is as familiar as household words. The summer is generally occupied

by them in getting on to the lands and putting up a cabin, when the rigor of winter imposes upon them a six months struggle for preservation alone. But on the plains of New Granada, perpetual summer blesses the poor emigrant, with an immunity from the heart-sickening distresses of this starving, freezing ordeal for a home !

5th. We shall briefly assign another reason for our belief that emigration is soon to set its floods into this country. It is, that so far as the liberal form of our government has any thing to do with inducing emigration to this country, we have no advantage over New Granada. They are as republican as we are. While therefore we are equal on that point, the price of real estate suitably located, and of a fertile character, has become so enormously high here, that it amounts to absolute prohibition to the great mass that come to this country. It is now checking emigration, and the emigrating associations of Europe have just now begun to look over New Granada in search of homes. It is only necessary to look, to find, and be satisfied.

For a birds-eye view of the present population, &c., of New Granada, we refer the reader to the following tables .

* * * Whilst the above pages were in print, we received the important tidings, which we hasten to communicate to our readers, that the government of New Granada, awakened at last to a proper sense of philanthropy, and to its own interests, has decreed, "Freedom of Worship," in the whole republic.

General Table of the Census, by Sections, Provinces and Territories, and number of Legislators.

Position.	Provinces and Territories.	Senators.	Deputies.	Civilized Population.	Sections.	Total.
In the Isthmus of Panama.	Azuero,	1	1	34,648	1st. Istmo.	138,108
	Chiriquí,	1	1	17,279		
	Panamá,	1	1	52,322		
	Veragas,	1	1	33,864		
In the south between the central cordillera and the Pacific.	Barbacóas,	1	1	26,519	2d. Cáuca.	276,249
	Buenaventura,	1	1	31,150		
	Cáuca,	1	2	70,748		
	Pasto,	1	1	27,620		
	Popayan,	1	2	77,105		
	Túquerres,	1	1	43,107		
In the west, between the Magdalena, the Pacific and the Gulf of Darien to both seas.	Antióquia,	1	2	75,053	3d. Antióquia.	287,037
	Chocó,	1	1	43,649		
	Córdoba,	1	3	90,841		
	Medellín	1	2	77,494		
In the central part of the Republic, extending east to Venezuela.	Bogotá,	2	4	144,592	4th. Cundinamarca.	554,955
	Cundinamarca,	1	2	81,215		
	Mariquita,	1	2	86,894		
	Neiva,	1	3	103,003		
	Tequenthama,	1	1	56,126		
	Zipaquirá,	1	2	83,125		
In the northeast to Venezuela.	Casanare,	1	1	18,573	5th. Boyacá.	414,210
	Tundama,	2	5	152,753		
	Tunja,	2	4	133,463		
	Vélez,	1	3	109,421		
In the north to Venezuela.	Ocaña,	1	1	23,450	6th. Guanentia.	319,574
	Pamplona,	1	3	62,990		
	Santander,	1	1	21,282		
	Socorro,	2	5	157,085		
	Soto,	1	1	54,767		
On the Atlantic.	Cartagena,	1	3	103,783	7th. Magdalena.	249,921
	Mompox,	1	1	30,207		
	Riohacha,	1	1	17,247		
	Sabanilla,	1	1	48,167		
	Santamarta,	1	1	36,485		
	Valle de Upar,	1	1	14,032		
	Territorio Mocoa.	1	1	3,000		3,000
		39	65	2,243,054		
						2,243,054

Table of the Population, Classified by Races and Castes, and Savages.

Analogous Sections.	Common White Race.	Ameri- can civi- lized Ra- ces.	Savage Races.	Ethiopi'n Negro Race.	Quad- roons.	Mestizo's.	Mulat- toes.	Zamboes	Total.
1st. Isthmus,	14,000	8,000	6,000	3,500	1,300	97,658	12,250	1,400	144,108
2d. Cauce,	49,000	25,000	"	38,000	14,600	33,049	114,600	2,300	276,249
3d. Antioquia,	50,000	7,000	5,000	15,600	4,000	155,037	54,000	1,400	292,037
4th. Cundinamarca,	137,790	127,290	10,000	5,100	3,000	252,533	28,000	1,240	564,955
5th. Boyacá,	102,210	95,710	10,000	740	200	189,452	3,600	2,300	424,210
6th. Guantáná,	67,000	20,000	400	3,500	1,100	204,174	22,500	1,300	319,974
7th. Magdalena,	30,000	16,000	3,600	13,500	5,800	46,421	48,200	90,000	253,521
Territory of Goajira,	"	"	20,000	"	"	"	"	"	20,000
Territory of Mocoa,	3	2,000	65,000	60	54	673	150	60	68,000
		301,000	120,000	80,000	30,054	998,997	283,000	100,000	
Total by races and castes,	450,003	421,000		80,000	1,029,051		383,000		2,363,054
	Caucas'n	American.		Ethiopi'n Negro.	White Mixed.		Colored	Mixed.	
Total by colors.					1,029,051				
White*	450,003								1,479,054
Mixed†		421,000							421,000
Copper colored‡									383,000
Negro§				80,000					80,000
									2,363,054

* Intelligent, active, laborious, moral.

† Strong, voluptuous, intelligent, brave,

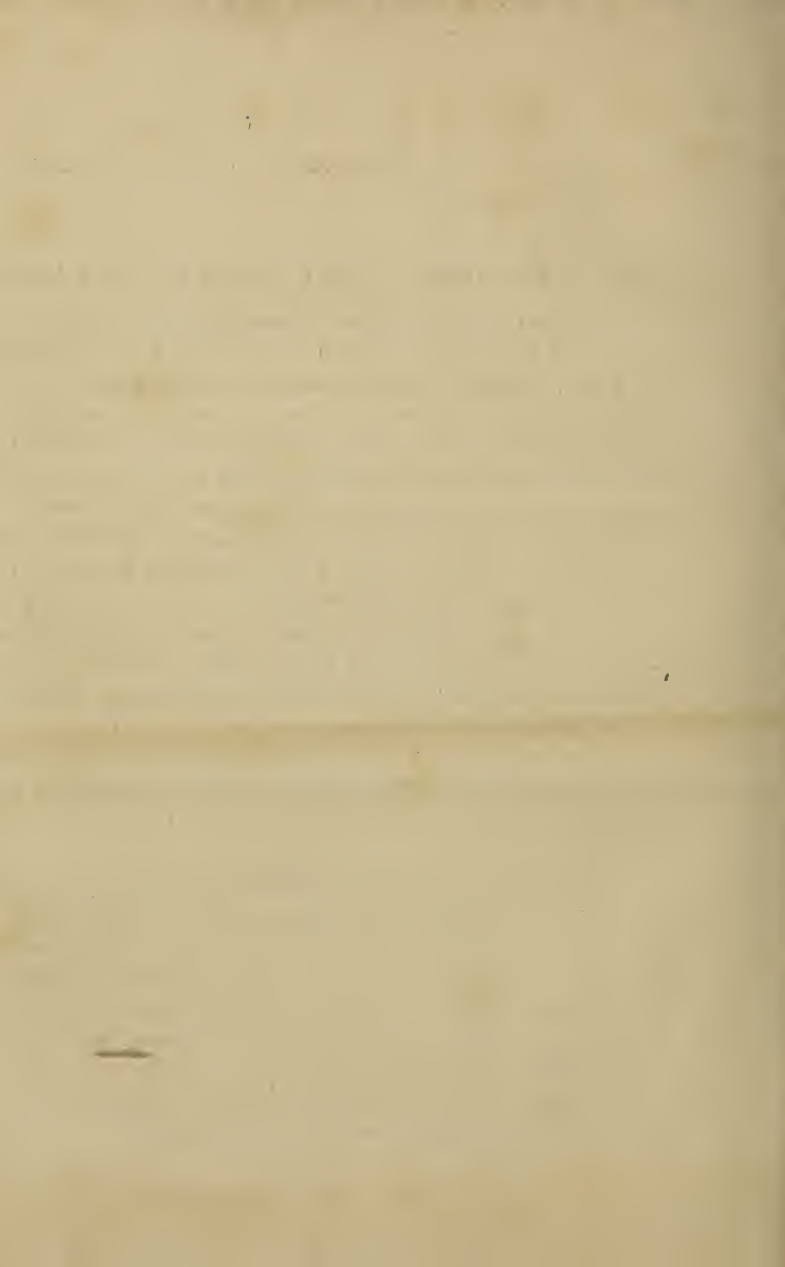
‡ Indolent, enduring, suspicious, frugal.

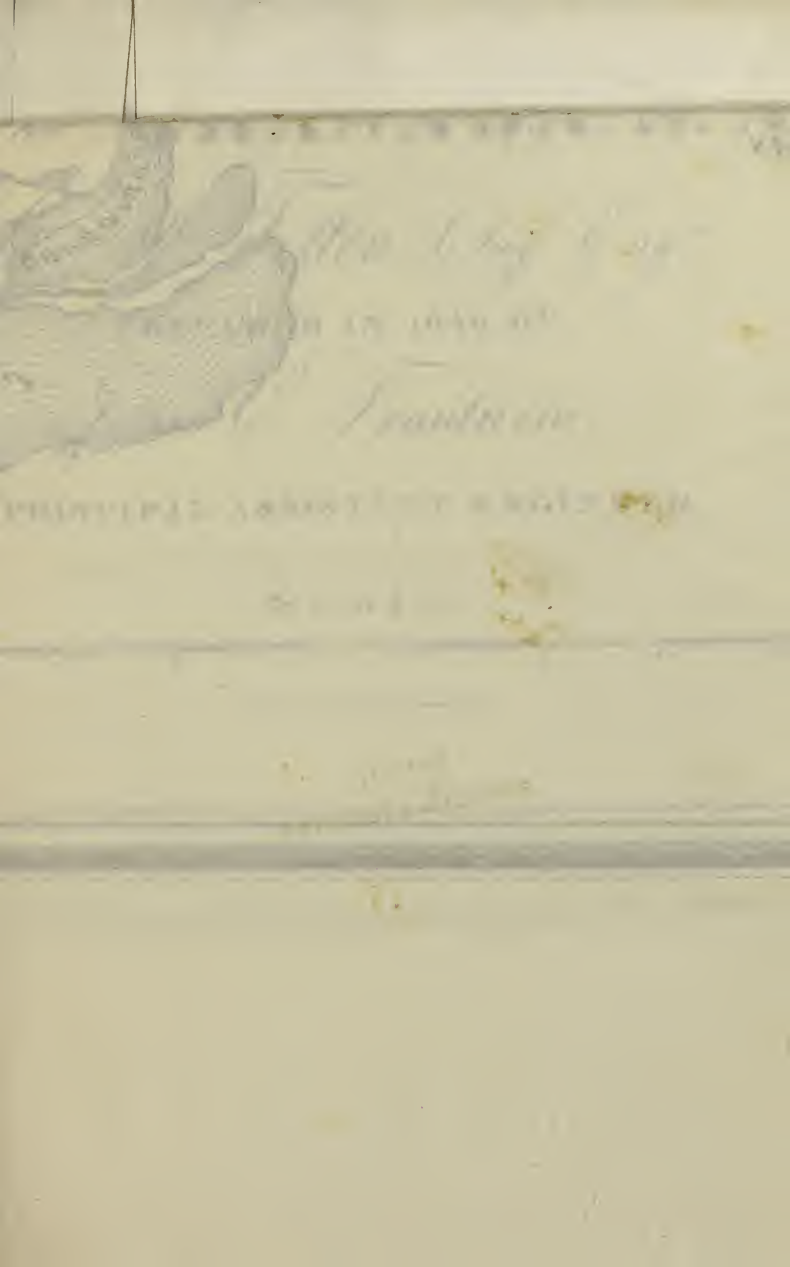
§ Weak for labor, enduring, suspicious.

EXPLANATIONS OF THE MAP OF THE CANAL.

From Pasa Cabello to the Bay of Matunilla is a distance of about six miles, which is an old Spanish Cutting. The Bay of Matunilla is deep water, capable of being navigated by large vessels. We pass through this Bay and enter a cutting of about one mile wide, which connects the Bay with a small Lake called *Lake Matunilla*, from this Lake to another Lake called Corcobado is a cutting of about four miles. We pass through this Lake to another called Palotal. From Palotal to the Lake La-Cruz, we go through a cutting of about 3 miles.—From this Lake to the Village Gambote, we pass a cutting of about ten miles. From this Village to the Village of Vuetta-De-Viga is a cutting of about two miles. From thence to Bodegas the landing for Mahatas is about eleven miles. We then continue to follow the old Spanish Canal to Seiba, from thence to Manglar and to San Estanislao, and continue on the old Spanish Canal a distance of about twenty-one miles, to Lake Sanaguare. We pass through Lake Sanaguare to Col. Totten's Cut, which is about fifteen miles in a straight line, passing through Santa Lucia to Calamar, the terminus of the Canal.

From this it will be seen that the Spanish Crown built about fifty-six miles of Canal, and the Government of Carthagena fifteen miles, making in all, seventy-one miles of Canal, and rendering navigable the inland Lakes mentioned. It must have cost the Government, if we can form any estimate from our own experience in building; or if the money expended under the Provincial Government of Carthagena by Col. Totten, would enable us to make an estimate, not less than seven millions. That the old canal was well done, is proved by the fact that it has stood the wear and tear of time.



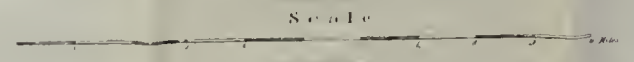


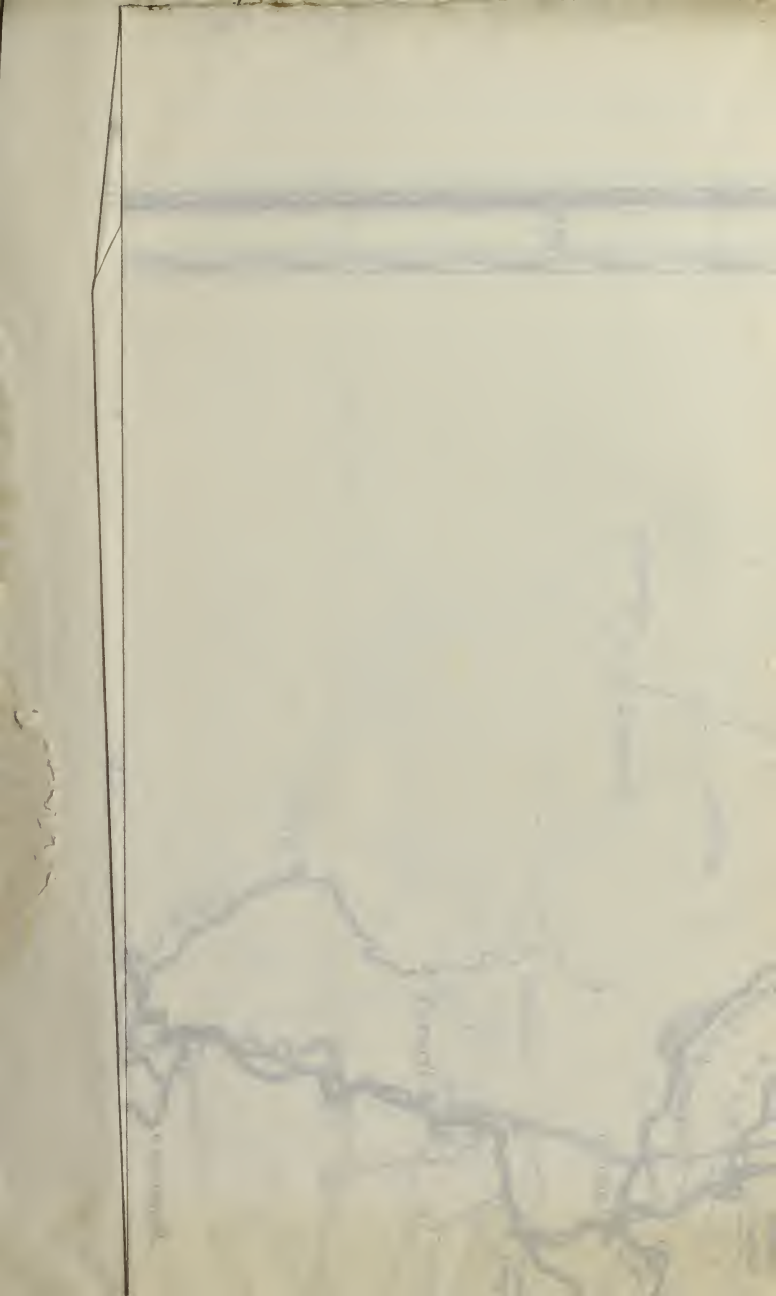


MAP
of the
CANAL OF THE DIQUE
NEW GRANADA S.A.

G. M. Totten, Chief Eng.

PREPARED IN 1846 BY
John C. Trautman,
PRINCIPAL ASSISTANT ENGINEER





A GENERAL OF THE RIVER MAGDALENA

Showing its Course
FROM HONDA TO ITS MOUTH
From sketches by Humboldt

Scale 1 inch = 20 miles



APPENDIX.

[C]

AN ACT TO INCORPORATE THE NEW GRANADA CANAL AND STEAM NAVIGATION COMPANY OF NEW YORK, PASSED MARCH 17, 1855.

The People of the State of New York, represented in Senate and Assembly, do enact as follows :

§ 1. Henry Vendryes, James A. Requa, Moses Starbuck, Joseph O. Post, Lucian Birdseye, Ward Cowing and Solomon Sanders, Jr., and their associates, and all other persons who hereafter may be holders of the stock hereinafter mentioned, are hereby constituted a body politic and corporate, by the name of "The New Granada Canal and Steam Navigation Company of New York," for the purpose of repairing, and rendering and keeping fit and ready for navigation, the canal known as the Dique of Carthagena, which connects the bay of Carthagena with the Magdalena river, in the republic of New Granada, and of navigating, by the use of steam or otherwise, the said dique, and also the bay of Carthagena and the adjacent waters, and the waters of the Magdalena river and its tributaries, and of taking, holding, exercising and enjoying all the grants, privileges, rights and concessions, immunities and advantages secured to, and held and owned by the said Henry Vendryes, under and by virtue of the contract made by and between him and the directive junta for the opening of the said dique of Carthagena, and of purchasing and navigating with steam or sailing vessels, towboats, barges, or canal or other boats as

may be proper and convenient to be used upon or in connection with said dique, and for the navigation of said river and its tributaries, and the bay of Carthagena and the adjacent waters; and for such purposes all the necessary and incidental power is hereby granted to said corporation, including full power to collect tolls for the use of the said canal or dique, pursuant to the aforesaid contract.

§ 2. The capital stock of said corporation shall be the sum of two millions of dollars, of the money of the United States, and such stock shall be divided into shares of twenty-five dollars each, and shall be deemed personal property, transferrable in such manner as the by-laws of said corporation shall direct. The said corporation may commence operations when two hundred thousand dollars shall have been subscribed, and five per cent on each share subscribed for, paid in. The said James A. Requa, Moses Starbuck and Joseph O. Frost, shall be commissioners to receive subscriptions for the said capital stock, and if the whole capital stock shall not be subscribed at the time first appointed, other subscriptions may be at any time received, until the whole amount shall be subscribed, at such times and under such regulations as they shall prescribe.

§ 3. It shall be lawful for the said corporation to contract with the said Henry Vendryes or his assigns, for the purchase by said corporation of the said dique or canal of Carthagena, and of all the privileges, rights, concessions, and contracts appertaining thereto, and of all the grants, donations and appropriations of lands, or any other things of value, originally made to or for the use, benefit and improvement of the said canal, and of all the benefits, properties, immunities and advantages held, owned or enjoyed by the said Henry Vendryes, or to which he may be entitled in or by, or in connection with his aforesaid contract with the said directive junta, or as appertaining to the said dique, and to receive a conveyance of and hold the same, in the same manner as the said Henry Vendryes now does or can do, and to issue stock to the amount of the value thereof in payment therefor; and the stock so issued shall be declared and taken to be full stock, and not liable to any further calls; and to lease or sell, convey or dispose of any of such lands which the said corporation shall not deem it necessary to retain, and to build, construct and maintain all such buildings, piers, docks, wharves, basins, harbors, warehouses, fixtures, machinery and appurtenances on the said lands, or in connection with the said dique, as the said corporation may deem expedient, in like manner as the said Henry Vendryes can do under his aforesaid contract.

§ 4 The concerns of the said corporation shall be managed by a board of directors, to consist of not less than seven nor more than thirteen members, who shall be stockholders of said company, and who (except the first directors hereby appointed), shall hold their offices for one year, and until others are chosen in their places. The persons named in the first

section of this act, shall be the first directors, and shall hold their offices until the second Tuesday of July, one thousand eight hundred and fifty-six, and until others are chosen in their places. The directors for the first year, shall be annually chosen at such time and place in the city of New York, and on such notice, as shall be prescribed by the by-laws, of said corporation. In all meetings of the stockholders, each share shall entitle the holder to one vote, to be given in person or by proxy. In case it should at any time happen that an election of directors should not be made on the day appointed by the by-laws of the said corporation, the said corporation shall not for that cause be deemed to be dissolved, but such election shall be held on any other day which shall be appointed by the directors of the said corporation.

§ 5. The directors (of whom four shall constitute a quorum for the transaction of business) shall appoint one of their number to be president, and may appoint such other officers and agents as they shall deem necessary; and they may make and establish such by-laws, rules and regulations as they shall think proper and expedient, touching the government of the said corporation, and the management, control and disposition of the property, estate and effects of the said corporation, the transfer of shares, the duties and conduct of their officers and servants, the election and meeting of the directors, and all matters whatsoever which may appertain to the concerns of said company. When any vacancy shall happen among the directors, it may be filled by the remaining directors, and the directors may remove all officers appointed by them, and appoint others in their places and may fill all vacancies in the offices; and they may also, require security for any of the officers, agents or servants of the company for the faithful performance of their duties, and the faithful accounting for and payment over of all moneys that shall come to the hands or control of any such officer, agent or servant, and may take and approve such security.

§ 6. Of the directors of said company, at least two-thirds shall be citizens of the United States. The said company shall be located and keep its principal office in the said city of New York; the meetings of the board of directors shall be held, and the stock of said company shall be registered and transferred, in the said city; but the directors may, if it shall be deemed advisable, establish another office or offices for the transfer of the stock of the said company or of any part thereof.

§ 7. The directors may require payment of subscriptions to the stock at such time and in such proportions as they may deem proper, under the penalty of forfeiting all stock and previous payment thereon, and the said company may sue for and recover all such subscriptions. Notice of the time and place of such payments, shall be published for four weeks previ-

ous to such time, at least once in each week, in two newspapers published in the city of New York.

§ 8. The said corporation may borrow from time to time such sum or sums of money, as may be necessary to carry out the purposes of this act, in the whole not exceeding the capital stock actually paid in, and may issue and dispose of their bonds for any amount so borrowed, and are hereby authorized to mortgage any part of their corporate property and privileges to secure the payment of such bonds. And the said directors may confer on the holder of any bond they may issue for any money so borrowed the right to convert the principal due thereon, into stock of the said corporation, at any time not exceeding five years from the date of such bond, under such regulations as the directors may adopt, and for such purposes the said corporation are authorized to increase the capital stock to the amount so borrowed, whenever the persons or any of them, to whom such money is due, shall elect to convert the same into stock. But nothing herein contained shall be construed to authorize an increase of the capital stock of said company beyond the sum of two millions of dollars.

§ 9. The said corporation may and shall have continual succession, and shall be capable in law of suing or being sued, and may have a common seal, and the same may alter or renew at pleasure, and all contracts made may be either verbal or under the signature of the president, secretary or other officer or agent of the said corporation, and with or without the corporate seal.

§ 10. Each and every stockholder shall be individually liable to the creditors of said corporation, for all debts that may be due and owing by said corporation to their laborers and servants for services performed, and for all other debts and liabilities of the said corporation, to an amount equal to the amount of stock held by him, until he shall have paid in full the amount of said stock so held; but no suit shall be brought against any stockholder in said corporation for any debts contracted, unless the same shall be commenced within one year from the time he shall have ceased to be a stockholder in said corporation, nor until an execution against the corporation shall have been returned unsatisfied in whole or in part. No person holding stock in said company as executor, administrator, guardian or trustee, and no person holding such stock as collateral security, shall be personally subject to any liabilities as a stockholder of said company; but the person pledging such stock shall be considered as holding the same, and shall be liable as a stockholder accordingly, and the estate and funds in the hands of such executor, administrator, guardian or trustee shall be liable in like manner, and to the same extent as the testator or intestate, or the ward or person interested in such fund would have been, had he been living and competent to act, and held the stock in his own name.—
Every such executor, administrator, guardian or trustee, shall represent

the shares of stock owned by him as such executor, administrator, guardian or trustee, at all meetings of the company, and may vote as a stockholder; and every person pledging his stock as aforesaid, may in like manner represent the same and vote accordingly.

§ 11. This act shall take effect immediately.

STATE OF NEW YORK, SECRETARY'S OFFICE.

I have compared the preceeding with the original law on file in this office, and certify that it is a correct transcript therefrom, and of the whole of said original.

[L. S.]

Given under my hand and seal of office, at the city of Albany, this third day of April, one thousand eight hundred and fifty-five.

A. G. JOHNSON,
Deputy Secretary of State.

[D]

TRANSLATION OF MR. VENDRYES' CONTRACT.

In the City of Carthagena, capital of the province of the same name, of the republic of New Granada, on the sixth day of February, 1855, appeared before me, the undersigned, first public Notary of the District, and witnesses that shall be mentioned. The gentlemen that constitute the directive junta of the Dique, on the one side to wit:—The Governor of the province and president thereof Anto. Gonsales Carazo, the Provincial Treasurer Yldefonso Meudez, the District Attorney (personero), Benjamin Baena, and members (vocales) Manuel del Rio, Francisco Zubiria, and Secretary the said Benjamin Baena, and on the other side Henry Vendryes, Esq., British subject of Jamaica, whom I testify to know, and they say that they have entered into a contract, on which they have mutually agreed, on the basis and conditions that are contained in the following articles:

Art. 1. The canal of the Dique is ceded to Henry Vendryes as his property throughout its extent, from the bay of Carthagena to its embouchure or entrance into the Magdalena river, with all its privileges, rights concessions, and contracts that appertain thereto, for the period of sixty years, to be reckoned from the day that the contract be definitely perfected and the deed signed; in the aforesaid concessions are not comprehended, the appropriations that the national and provincial Legislatures have made; or may in future make from their own revenues to liquidate the debt contracted by the province by reason of previous contracts that had in view the opening of the canal by the province.

Art. 2. The exclusive privilege of the navigation of the Dique Canal by Steamers, is also conceded to Henry Vendryes, for the term of sixty years, consecutive, reckoned from the day expressed in the 1st article.

Art. 3. Henry Vendryes will purchase from the province the machinery and instruments that may be necessary for the work, and which the former contractor ceded as indemnification, and which may be found to be in good order, he obliges himself to pay for them on the terms that may be stipulated in a separate contract.

Art. 4. The term of the cession of the Dique having expired, Henry Vendryes will return it to the province in a good state of navigation, with all its annexations that may be destined for the preservation of the canal, which delivery shall be verified in fifteen days after the expiration of the contract.

Art. 5. The work shall be commenced within eight months after the execution of the deed as a public instrument. Should it not be commenced within that time, without just cause approved by the junta, in good truth and faith, H. Vendryes will cede to the province \$1,600 of the \$4,400 that he is to deposit according to the 7th article, to guarantee the conclusion of the work.

Art. 6. Henry Vendryes binds himself to finish and perfect the said canal on his own account, and with his own funds in the term of two years from the date of the signing of the deed.

Art. 7. Henry Vendryes binds and obliges himself to deposit, and he will actually deposit in the provincial treasury, the sum of \$4,400 in cash, within the peremptory term of seventy-five days, reckoned from the 10th of the present month, (February,) to guarantee the due fulfilment of this contract in the terms stipulated, and will forfeit said sum, or the \$2,800 balance that would remain in the case of the 5th article, to the provincial treasury, in case that at the expiration of the two years, he should not have completed the canal with all its works. This sum shall likewise be returned to him in money as soon as the canal be finished.

Art. 8. Henry Vendryes engages to open the canal, giving it sufficient width for the navigation of steamers, similar to those that now nav-

igate the Magdalena, and to preserve it in good navigable order, so that at all times, and throughout its whole extent, it may be navigable by steamers and other vessels not drawing more than three and a half feet.

ART. 9. If, on the conclusion of the canal, any obstacle should occur to obstruct its easy and permanent navigation, and it should not be removed within the time that the Governor of the province should prudently assign, or the provincial Legislature, if after the contractor be required to remove it, he should not do so, nor assign a just cause for same, he will forfeit the rights that he should have acquired, and the canal shall again become the property of the Province with whatever improvements it may have received. The contractor will incur the same penalty, if, having commenced any repairs necessary, he shall suspend the prosecution thereof for more than three months without giving a just cause.

ART. 10. Henry Vendryes binds himself not to levy for the use of the canal, other or greater dues than those established by the ordinance of 12th October, 1846; but he shall be at liberty to propose to the provincial legislature the alterations that he may judge convenient to be made in said tariff, augmenting some of the tolls, or introducing others, in order that they may receive the sanction of the legislature before they take effect.

ART. 11. Henry Vendryes obliges himself to pay into the provincial treasury \$3,000 of eight dimes (\$2,400 A. Cy.), every year, to commence from the day that the navigation of the canal be opened, as an indemnity for the interest of the debts and obligations now affecting the canal, by virtue of his possession of the said canal, the province thus assuming the responsibility of said debts and obligations with the auditors.

ART. 12. Henry Vendryes also engages to indemnify the province with the sum of \$1,200 of eight dimes (\$960) in twelve monthly installments, from the day that the canal be rendered navigable, to repay the sums that may have been disbursed by the provincial treasury for the preservation and clearing of the canal.

ART. 13. The controversies that may arise between the junta encharged with the Dique Canal, and whoever may subrogee it, and Henry Vendryes, and whoever may succeed him, by reason of the execution or want of fulfilment of the contract, or regarding the meaning or interpretation of the clauses that it contains, will be judged by the magistrates, and in conformity with the laws of the republic of New Granada. In no case shall privileges, immunities or exemptions, not acknowledged or conceded by the contract be alleged, nor will the intervention of any other authority or functionary be admitted, beyond those legally established with jurisdiction in the said republic. Such controversies as may affect the existence, preservation and duration of the contract, and of the duties annexed to it shall be decided by arbitration.

ART. 14. If at the expiration of the two years the canal should not be completed, and the work should be suspended beyond three months, and after the contractor be required to prosecute the work, and the junta have designated a proper term, he should not continue them without assigning a just cause, abandoning entirely the works, Henry Vendryes shall lose the privilege that is conceded to him by this contract, and the canal shall again become the property of the province with all its improvements adjoined.

ART. 15. The present contract shall be perfected to a deed of public instrument by the tenth day of the present month at the latest.

With said conditions that are contained in these fifteen articles, and which must be observed, precisely and invariably observed, kept and fulfilled, the contracting parties formalise the present contract, making it a public instrument as prescribed by Article 15, to give it greater validity and form, which contract has been approved under this date by the junta in charge of the Dique Canal, and to its more faithful and punctual fulfilment, both contracting parties oblige themselves, the junta with the revenues of the province, and Henry Vendryes, Esq., with his goods, present and future in all forms according to law, in testimony whereof, and annexing the certificate that proves the payment of the register duty, allowing copies to be furnished to either party without a mandate, nor notice, they severally and all said the same, gave the same as their deed and signed together with the witnesses instrumental, in whose presence it was read, who sign it Messrs. Andres Estarita i Saturnin Bautista Morelo, resident. Anto. Gonsales Canrazo, Ildafonso Mendez, Benjamin Baena, Mauuel del Rio, Franco. Zubirita, Benjamin Baean, Henrique Vendryes.

JOSE MARIA HERNANDEZ,

Notary.

[E.]

EXTRACTS [TRANSLATED] FROM THE PAMPHLET
OF DR. RAFAEL NUNES, EX-SECRETARY OF THE
GOVERNMENT OF CARTHAGENA, NOW GOVER-
NOR ELECT OF THAT PROVINCE.

After these premises, we are going to examine the most intrinsic part of the question, namely : the influence which the opening of the Canal shall exercise on the commercial and agricultural condition of the principal Provinces of the Republic.

The canal is destined to be the vehicle of commercial communication, more or less, with the following Provinces of New Granada :— Bogota, Neiva, Mariquita, Monpox, Ocana, Antionia, Medellio, Cordova, Socoquero, Velez, Tunja, Yundama, Choco, Santa Martha, Rio Hacha, Valledupar and Carthagena. That is to say, will pass on the Canal :

1st. All the articles sent abroad by the first twelve Provinces above mentioned, and we must observe that Kina, which is one of our most valuable articles of export, is produced for the greatest part, exactly by those inland Provinces to which the Canal will serve as a vehicle: 2d. That the Province of Antiochia is the one that remits to foreign countries the greatest part of gold, and in such a quantity that only in January, 1851, according to the report of the Secretary of the Treasury to the Legislature, 440,000 dollars in gold were exported. 3d. That Mariquita grows and prepares that kind of Tobacco, which has given the most lucrative impulse to our exportations. The quantity of Tobacco sold by the Government for exportation during the year of 1850 was 13,608 quintals and 75 lbs, and as the production of this commodity has increased since in a prodigious manner, in consequence of its monopoly being abolished, it will be easily understood that the exportation also has increased in the same ratio.

2d. Will likewise pass on the Canal all the cargoes imported from abroad for the aforesaid Provinces.

3d. All the Sugar, Anise, Cocoa, Coffee, Tobacco &c., raised in these Provinces and used at Carthagena, Choco, Santa Martha, Valledupar and Rio Hacha or that is brought to these places for consumption at Panama, and it must be observed, that the celebrated Tobacco of Alabama (which is that of Mariquita) as well as the Sugar of Honda and the Cocoa of Neiva, and the Sugar, Coffee and Anise of Ocana, are in great demand in our Atlantic States, like Carthagena, Santa Martha, Rio Hacha, and some parts of Panama and Sabanilla, all of which, except only the last named, will certainly receive these articles through the Canal.

4th. Finally all the productions which shall be forwarded from Car-

thagena, Santa Martha, Valledupar and Rio Hacha to the Provinces in the interior of the Republic in return of those received therefrom.

Now, in order to form an idea of the quantity of articles of all kinds, which will be consumed by said Provinces, and thus to reckon the commercial movement on the Canal when it shall be in a good state of navigation, we have only to show the numerical population of each of them, and a list of the principal commodities transported either on a reciprocal trade, or for exportation.

ARTICLES.

Anise, Rice, Sugar, Coton, Cocoa, Coffee, Hides, Caoutchoue, Dividivi, Timbers and Dye Woods, Corn and Millet, Gold, Guaco, Salt and Tobacco.

POPULATION.

Bogota	317,351	Velez	109,001
Neyra	103,002	Tunja	162,950
Mariquita	105,105	Tundamar	152,753
Mompas	30,207	Choco	43,649
Ocana	23,450	Santa Martha	36,485
Antioquia	75,053	Rio Hacha	17,247
Cordova	90,841	Valledupar	14,032
Medellin	77,942	Carthagena	116,593
Socorro	147,864		

Let us suppose—

1st. That the 1,372,522 inhabitants of the first twelve Provinces, may consume, each of them, four dollars of imported goods: that is to say	\$5,490,088
2d. That the value of their exportations may amount to half the value of the importations.	2,745,044
3d. That they consume two dollars each of articles sent from Carthagena, Santa Martha, Valledupar, and Rio Hacha.	2,745,044
4th. That Carthagena, Valledupar, Rio Hacha, Choco, and Santa Martha (228,000 inhabitants) and the Isthmus, may consume the value of four dollars, for each inhabitant, of the productions of the twelve Provinces, afore mentioned; like Cocoa, Coffee, Tobacco, Sugar, &c., &c.	912,024
Total,	<hr/> \$11,892,200

We have then these hypothesis being verified, that the value of national and foreign goods which shall pass on the Canal every year will be \$11,892,200.

And we reckon also that if we were to levy only a moderate per centage, for instance of one half per cent., instead of the heavy toll-dues now in use, the Canal would yield \$59,461 a year, which income might even be increased without varying substantially the notions and foundations of our estimates.

In the report of the Secretary of the Treasury to the Legislature, in 1851, we have the following information :

The Government of Antioquia has lately sent to the Secretary of foreign affairs a table, showing the number of mines now in each District of that Province, with the probable yield of each. This table does not include the gold amassed by the washers in the wells, on the ravines and banks of rivers, which, being the principal branch of industry of those inhabitants, must yield an immense quantity of that precious metal. It does not include, also, the mines situated on the banks of the rivers Cauca, Nechi and Sasmana, as no details could be obtained about them, the mines being spread on an extensive tract of land almost inaccessible on account of the rough steepness of the surrounding mountains, and these statistics being made by persons too much engaged in other things, and at a time when there was a talking about levying *direct taxes*.

It is easy to comprehend how inexact this table must have been both in regard to the number of mines and to the probable yield of the same. However the following is the result of that table, viz.:

There are now in the Province of Antioquia, in full operation, 43 mines of silver, and 264 of gold. Of 15 of the former and 149 of the latter the exact yield is not known. Also it is well ascertained that they leave large profits to the proprietors. The annual yield of the other 143 is 3,560 lbs. of gold, equal to \$783,200, valuing at eighteen reals each castellian of gold. This is the yield of less than half the mines now discovered. Should the yield of the other 164 mines be in the same proportion, the total yield of the mines in the Province of Antioquia would be of \$1,566,400 a year. The yield of the mines of the rivers Cauca, Nechi, and Samana, and others not included in the table, which is not yet ascertained, might probably amount to one-fourth of the above figure, making an aggregate of \$2,000,000. But the gold gathered in the diggings and springs must be even in a larger quantity.

The Province of Antioquia, has now more than 200,000 inhabitants, all living on mining industry. But let us suppose that only one out of twenty men be engaged in washing gold, and that he works two hundred days a year, if he gathers on an average 1-2 castellian of gold a day, the total production would be one million of castellians a year, altogether. We have then here \$2,200,000, which added to the two millions yielded by the

mines now in operation, make 4,200,000 dollars in gold, only in the Province of Antioquia.

We possess another information, to judge of the probable total yield in the whole republic.

The gold which went to the foundries for exportation and, what came to the mint for coinage, amounted in all, in the fiscal years 1848-49, to 8,400 lbs., that is to say the value of \$1,900,000. Of this quantity 5,376 lbs. belong to the Province of Antioquia, and 3,024 lbs. to the rest of the republic. The duty of 4 per cent. levied on the metal in the foundries, and at the mint, and the delay to which it was necessarily subject, were sufficient inducements to export it by land. We can easily reckon that at least one part of gold equal to what was sent to the foundries, and to the mint, left the country by smuggling, which gives a total amount of 16,800 lbs. of gold, or about \$4,000,000 in value; in the Province of Antioquia alone there have been sent abroad through the Post Office, in the month of January last, about 2,000 lbs. of gold, or \$440,000.

Nearly all the gold yielded in this Republic, is exported.

Manufacturing industry is too backward to require much circulation of gold. Then, only of this valuable article, we have at least for exportation \$4,000,000, at a low estimation.

The exportation of Tobacco amounted last year to 25,000 quintals, which, supposing them sold in European markets at the very low price of 12 pence the pound, give a value of about 800,000 dollars of our currency.

The exportation of other articles like Cocoa, Coffee, Hides, Corn, Brazilian wood, Kina and Hats, only from the port of Sabanilla, amounted last year to \$212,000. The Province of Rio Hacha, whose population is only 20,000 inhabitants, exports annually about \$500,000 worth of her productions.

The valley of Cucuta exports annually from 6 to 7 thousand bags of Coffee, and about 1000 of Cocoa, and more than \$250,000 worth of Hides and other articles.

By joining all these items I can confidently rely upon the fact, that our exportations do not fall short of a million of dollars every year.

But if, on the other side, we consider that the inhabitants of New Granada, which are over two millions, are addicted to agricultural and mining pursuits, and a very few to manufacturing industry, and that nearly half of them though poor, use foreign productions for their nourishment, and wearing apparel; if we consider the immense quantity of hardware which we annually import, if we take into account the considerable quantity of goods which have already become necessities of life for the middling classes, and the very many articles of luxury for the wealthy part of our population,—when we join all these circumstances there will be found no exag-

geration in our estimation of all imported goods and wares at \$12,000,000, deducting from this amount 50 per cent represented by the charges of freight, duties, land transportations, commissions and profits to the original cost of all importations.

Therefore, in view of these careful and accurate estimates, we can easily calculate that the exportations and importations amount, in New Granada, to twelve dollars for each inhabitant, which calculation is not at all exaggerated with reference to the information on which it is founded [2.]

Thus it would not be incorrect at all on our part to double the amount which we had calculated at first for the commercial movement of the Provinces of Mompox, Ocana, Moquita, Cordova, Medellin, Antiaria, Neiva, Bogota, Tunja, Tundama, Socorro and Velez, through the canal (1,372,522 inhabitant's,) whereas we supposed that each inhabitant would consume four dollars worth of imported articles, and export the value of two dollars only, thus making a total of \$8,235,132 which is just one half less than the estimation made by the Secretary of the Treasury. So to the \$11,892,200 which we have calculated to be the amount of the commercial movement on the canal, we must now add \$8,235,132 more, thus making an aggregate of \$20,127,332.

Therefore the low transit duty, mentioned by us in the preceding chapter, would thus be raised to \$95,686 and 4 reals, which at 6 per cent a year represent a capital of \$1,594,866.

There is even more. The Quina, Tobacco and Gold, are, of our export articles, those more abundant among us and in greater demand abroad, and they amount to 5-6 of all our exportations. Therefore out of the \$980,105 worth of produce exported in 1851 through the Custom House of Santa Martha \$902,659 were represented by the above named articles which circumstance occurred also prior to 1849-50 in which the total amount of the exportations was of \$993,402 in the former, and \$1,639,927 in the latter year. Out of which \$920,125 was the value of Kina, Gold, and Tobacco in 1849, and \$967,761 in 1850.

And as the Districts in New Granada where these are the greatest production of the above articles, are all included in the list of those which must necessarily forward their exportations through the Canal, and as the value and destination of the importation are always in relation to their original value and provenience, it is natural to conclude that in all commercial transactions of this country the inhabitants of the aforesaid named provinces are the active agents, and that the trade on the Canal, will be much more considerable than it might be expected from my estimates.

And to the foregoing observations we might add the circumstance that as the \$4 worth of goods, which we have supposed are consumed by each inhabitant of the Provinces of Choco, Carthagena, Santa Martha Valledupar, Rio Hacha and a part of the Isthmus, like Tobacco, Cocoa,

Coffee, Sugar, Anise, coming from the Provinces in the interior, it is a very low estimate if we consider the great demand of these commodities continually increasing. We shall have fully proved and conveyed an incontrovertible conviction to the most incredulous minds that the commercial movement on the Canal will certainly exceed all expectations as soon as its navigation will be practicable and safe, and that any person or Company, that might enter into this undertaking will undoubtedly derive the most extraordinary profits. Even excluding the 67,764 inhabitants of the Provinces of Santa Martha. Rio Hacha and Valledapar from all connection with the route which is subject to these remarks, as many people suppose that they will continue their trade through their old routes, this would not essentially alter our flattering prospects and diminish our hopes.

And if we should suppose the possibility of a free communication between the rivers Magdalena and Cauca, so that the Canal should also serve to the many speculations of this rich and beautiful valley, so justly called *our garden*, where merchants at present are obliged to precipitate their shipments, by the boisterous waters of the Dagua to make them follow afterwards the long and dangerous route round Cape Horn, if we might establish this hypothesis with some probability, we would then have extended the sphere of action for this new route to an extreme which might be incalculable.

What is, then, the cause of the abandonment in which this brilliant project has been left. A project, which, even on a point of view, of mere speculations, offer so many good chances, and the best prospects of immense profits to any individual or company. ?

The only plausible answer to this question, is the backwardness of our scientific resources, and that inveterate system of routine which forms our most prominent characteristic, and which prevents us from entering with bold resolutions into speculations, even the safest, and most of lucrative results.

This is in reference to ourselves, but as to the exterior, the want of exact information concerning the nature of the works of the canal is the cause of the indifference of which we complain, whereas we cannot ascribe it either to weakness of mind, or scarcity of intellectual and pecuniary resources. Therefore, it is high time that we should exert ourselves to the utmost of our power, for the completion of such a transcendant undertaking.

It is high time that the valve which, being closed, embarrasses the production, should be opened.

The means of communication are like artificial arteries for nations, on account of the treble and simultaneous impulse which they give to agri-

culture, industry and commerce, being like a stage for those economic representations, whose music is the music of the locomotives and the moral aim the prosperity of the people, the principal actors being all those willing to employ their power, and the decorations the natural difficulties subdued by the powerful will of men.

The means of communication are also the most active agents to develop the intelligence of people. Productions cannot travel alone, men must go with them, and every man is a *focus* of ideas and thoughts. Behold, then, how civilization and enlightenment are attained and accomplished.

England, the United States, Belgium, France and Germany, which have made the greatest progress in science, industry and arts, are the most advanced as to the means of communication.

If, instead of idle monasteries, abbeys and castles in which the hateful policy of Spain was personified, based only in fanaticism and force, if, instead of those legions of Friars and Priests, with which she desired to enslave us, she had devoted part of our labor to the canalization of our rivers, and the construction of roads, our national and moral condition would now be far better. But as nothing of all this was left us by our Spanish masters, it is necessary that we should, through a free and extensive circulation of our rich productions, offer to foreign nations tokens of our improvement and wealth.

We must not be discouraged by any difficulty, nor by any of those obstacles, with which it is natural to meet in any great undertaking. If we will direct our earnest efforts to the final accomplishments of this canal, the task will not prove more difficult for us, than was for the English people the construction of their wonderful tunnel, which cost them immense sums of money, and the constant labor of twenty two years.

Until the year 1844, we had not yet made any serious attempt to open this canal, it was about that time that the contract was made with the civil engineer from North America, G. W. Totten, which has now been recinded by mutual agreement.

The most important now to attain this end, it is to spread with all possible precision and clearness, the idea among the people at large that the conclusion of this work is not only a brilliant undertaking in a philosophical point of view, but it will be a source of great profit for whomever shall enter into this speculation.

Our countrymen from Bogota, Medellin, Mompos, Ocana, &c., must give us their efficient support in our earnest endeavors. May they accept

our fraternal invitation, and come forward to encourage this good enterprise, and with the help of the Almighty God, we shall soon obtain such a success which will spread among us the same benefits, which the inhabitants of North America are now enjoying through their magnificent ways and means of communication.

The question is *to be* or *not to be*, as we have said in our text.

And if, after having shown to the light of reflection and intelligence the path which must lead us to prosperity and happiness, we will throw ourselves on it with full confidence and determination, we shall at least find an ample reward in the judgment of posterity which would in the contrary case, cast a stigma of reprobation on our memory for our culpable indifference.

Signed,

RAFÆL NUNEZ

Carthagena, 2d of July 1852.

NOTES.

1st. We might include in this list some Villages on the Isthmus. The influence of the Canal on the Provinces of Tunja, Tundama, Socoro, and Velez, will be greater by facilitating the communication with the Magdalena River to which object they have now directed their constant views.

2d From a calculation recently made in a publication in Chili, it is ascertained that the value of importations and exportations from that country amounts to \$20, for each inhabitant. We should think that the importations and exportations from Peru are in the same proportion, as

with a population less than 2,000,000 inhabitants, the revenues of the Custom House are of \$2,500,000

3d. In these last sums is included a small quantity of Silver Coin, the amount of which we were unable to ascertain.

5th. It must not be overlooked that in our calculations we have not included one single inhabitant of the Isthmus, where some Cocoa, Tobacco, &c., from the interior of the Republic is consumed.



[F]

EXPLANATION OF A PROJECT FOR NAVIGATING THE RIVER MAGDALENA.

Towards the close of the year 1852, the government of New Granada commissioned me to make a chart of the great river Magdalena, from its mouth to the head of navigation, at Honda. The results of my investigations during this service are contained in various reports published on the subject. I shall presently have to call attention to a few extracts from one of those papers; but it will be necessary in the first place to give some description of the river above referred to.

The Magdalena, together with its great tributary the Cauca, is said to be about one thousand miles in length; it rises in the Andes, between the first and second degrees of north latitude. These two rivers are of equal length, and run parallel to each other from south to north; at some distance below the city of Mompox and Maganguéy they unite, and form what is called by the natives "el Rio Grande del Magdalena."

The Cauca can only be ascended by steamers as far as the Brazo de Loba, some distance above Maganguéy; but the Magdalena is navigable to the Bodega of Bogota, two miles below the decayed city of Honda, and

between five and six hundred miles from the sea. This river is the great channel of trade with the interior of the republic, and the regions through which it flows may be characterized as ranking amongst the most fertile and picturesque in the world. It has, however, the drawback common to all the rivers on the Carribean coast, of not possessing a good entrance. Its *three mouths* are obstructed by sandbars, which can only be crossed at *irregular* intervals, by small vessels; and all goods imported into the country, or exported out of it, have to be conveyed, *with great delay and expense*, in boats called bongos and champans, through the shallow lagoons which form a communication between the river and the sea.

There are four ways of introducing merchandize into the Magdalena from the coast, and all are more or less difficult.

In the first place, goods are shipped by way of Santa Martha. This place, it is well known, is a fine seaport, but has no good means of access to the interior.

The next entrance is the main mouth called Boca Vieja. This is seldom used, being rather out of the way; but steamers have entered it in safety.

The principal navigable mouth of the river is called Boca Ceniza, and is situated eight miles below Barranquilla; steamers can enter by a channel called the Barra Nueva, without difficulty during the rainy season. When the trade winds prevail, which blow strongly from the northeast from December to April, a steamer must watch an opportunity to *slip* in between the lulls, which usually occur early in the morning; but at any other time, although subject to interruptions, this entrance must be considered safe, and has for many months been regularly navigated by the English steamer "*Estrella*," drawing seven feet of water.

Carthagena connects with the river by means of a chain of lagoons and channels called the Dique. I believe a company has been formed for the purpose of opening this communication, with *sanguine* hopes of success.

"There is a peculiarity about the Magdalena which, considering its magnitude, and the vast forests through which it flows, is remarkable; its navigation is not seriously molested by floating timber or sunken trunks of trees. Indeed the river is so safe that the proprietors of steamboats frequently allow their finest vessels to be commanded by gentlemen who have had no nautical experience whatever; a commercial agent who acts as captain, a mate, a pilot, and a clerk, being the only officers on board besides the engineers; and in no instance have the vessels thus commanded met with any serious accident. In making this remark, I do not mean to dispute the superior efficiency of experienced naval men as commanders of river steamboats. I merely state the fact as a proof that the Magdalena is free from danger; and I speak not of explosions, because that is a mis-

fortune which has nothing to do with the navigable capabilities of the river.

"As long as the present high freights can be sustained, it is possible that companies and owners will, at every hazard, persist in running their boats at all seasons of the year; and in any case, a certain class of boats will always be employed to keep up the communication between the coast and the interior; but I do not think the large boats of any prudently-managed company ought to be risked during the dry season. The profit that may now be earned will be understood by the following account, which I have made out upon what I supposed to be good authority:

"*Approximate Estimate of the Earnings of a Steamboat on the Magdalena River, per round voyage. Burden, 800 cargass of 250 lbs. each; 13 voyages per annum.*

Dr.	EXPENSES.	RECEIPTS.	CR.
To expenses for round voyage for wages,	\$738 46	By 800 cargass from Savanilla or Santa Marta, to Honda, at \$7 00,	\$5,600 00
" Wood (100 cubic feet cost \$2 50),	800 00	" 600 cargass down, at \$4,	2,400 00
" Board of men and passengers,	600 00	" Average of passengers per voyage,	1,500 00
600 cargass from Remolino to Santa Marta or Savanilla, at 6 reales,	450 00		
" 800 cargass from Santa Marta or Savanilla, to Remolino, at 6 reales,	600 00		
" 600 cargass from Honda to Conejo, at 8 reales	600 00		
" 800 cargass from Conejo to Honda, at 8 reales,	800 00		
" Insurance per voyage, on \$50,000, at the rate of 6 guineas per cent., equal to \$6 56 per cent.,	252 30		
" Wear and tear per voyage, proportion of 12 per cent per annum on 50,000,	461 54		
" Management, &c., 5 per cent. on cost,	192 40		
" Profit, per voyage, on a single boat,	4,005 30		
	<hr/>		<hr/>
	\$9,500 00		\$9,500 00

"The above account, therefore, leaves four thousand and five dollars and forty cents currency per round voyage profit, or, in other words, the steamboat ought to pay on the capital invested, eight per cent. per lunar month, or upwards of one hundred and four per cent. per annum; and if it should

be urged that, although down freight can always be obtained, up river freight is not so plentiful, it may be replied, with truth, that from 6000 to 7000 cargass are now lying at the custom house of Santa Marta, and more constantly arriving, and that the steamboats on the river have more freight than they can possibly carry for many months to come!

"All experience tends to prove, however, that boats built of timber, like the vessel above mentioned, should not be used on the Magdalena. Iron steamboats answer well, and do not require to be fortified in the bows with great thickness of timber, as on the Mississippi, to defend them from snags and sawyers, the simple iron plate being abundantly strong. No steamboat has yet been lost, or even seriously injured, except during the short dry season. I think my estimate for wear and tear high, the percentage being rather more than the usual average, but as my object is merely to prove, generally, that steam navigation on the Magdalena already pays well, I do not care to go out of my way to make any further addition to the *almost fabulous profits* above stated.

About two years ago, an English company was established in London to navigate the Magdalena by steam. It wrecked itself, at the very outset of its career. It expended nearly the whole of its capital upon three expensive boats, two of which are totally unfit for the river, and the remaining one takes forty days on an average, to make a round voyage from Barranquilla to La Vuelta, which ought to be done in less than half the time. It is understood, now, however, that she cannot ascend higher than Conejo, and orders have been issued to that effect. *This boat is at present earning from twenty to twenty five thousand dollars per voyage, and she will continue to do so until other boats are sent out.*

There are in fact, at this moment, on the Magdalena, no steamers whatever which can maintain a competition against a good American boat, and the field is entirely clear for the establishment of a new company. The government is disposed to favor the enterprise, and will give *twenty-five thousand dollars* per annum for carrying the mails to begin with.

The total movement of packages on the Magdalena, which has materially increased of late years, is stated by parties likely to be well informed, to amount to *sixty thousand* cargass annually. I cannot speak positively myself on this point, there being no very reliable government returns, and the trade has been shrouded in considerable mystery by interested parties. This quantity of goods would probably require three steamers of one thousand cargass burden.

I beg to add, in conclusion, two important communications from Patricio Wilson, Esq., of Bogota, and Captain H. Robinson, of New York, (the latter I before alluded to,) which will serve to exhibit, in a clearer manner, points upon which I have either not dwelt, or but slightly touched. Captain Robinson's estimates exceed mine, made so long ago. I

speaking of what I know was earned by the steamboats at the time, the facts being proved to me by the most incontestable evidence ; he explains what may be done, by good boats under prudent management ; he had the best opportunity of judging, and it will be seen how far we agree. Mr Patricio Wilson's letter will give an idea of the subsidiary projects in contemplation. I beg to state further, that there are other letters in New York, from merchants and capitalists of the highest standing, who propose to take shares themselves, recommending the project to the notice of parties desirous of making permanent investments in a safe and most lucrative speculation.

MESSRS. P. WILSON & J. MAY :

Gentlemen,—I hereby hasten to acknowledge and reply to your communication, soliciting information and my opinions respecting the commerce and state of navigation on the Magdalena river.

Having navigated this river during two years, I will, before entering on the trade and means of transportation, give an account of the currents, depth of water, &c., from the mouth to Honda, which may properly be called the terminus of navigation on the lower river.

Of the three mouths of the Magdalena, the western one alone is navigable. The water on the bar of this outlet varies from one to two fathoms ; and steamers of light draught, may with safety pass in and out during nine months of the year ; in February, March, and April, the strong N. E. trades, blowing directly across the entrance, cause a heavy surf on the bar ; at these times a passage can be only effected when the wind moderates. This commonly occurs about dawn, and lasts until seven in the morning ; during these intervals, the pent-up waters making their way out with force, allay the surf, and leave the bar passable.

Barranquilla, a town of 8,000 inhabitants, situated within six miles of the sea and twelve miles of the port of Savanilla, is the depot of all steamers running on the river. During the last year an English steamer has plied successfully between this depot and Santa Martha, by sea through the mouth of the river. Previous to the arrival of this vessel, all merchandise and produce passing to and from the Magdalena and Santa Martha were freighted in "bongos," heavy and rudely constructed boats poled by natives through lakes and bayos. From four to six days were required to perform this distance of fifty miles.

From Barranquilla to Puerto Ocana, the distance is about 250 miles ; the river has a clean bottom, and may be safely navigated during the night ; the current varies from two to three miles per hour. Beyond this point the uncertain bottom and tortuous channels make night running insecure. The river between the last-named place and San-Pablo, distance

seventy-five miles, has a current running in many places three and a half miles per hour, with deep water.

From San-Pablo to Nare, 150 miles, the current averages four miles per hour ; through this distance navigation becomes more intricate by the many islands and consequent ramifications of the stream ; frequently at the junction of these branches sandbars are formed, where, during the dry season, not more than three or three and a half feet of water can be had in the deepest parts. This distance is, without doubt, the shallowest part of the river ; still, I have never found less than three and a-half feet.

Were the grounding of steamers on these points attributed to the right cause, aside from their overdraught of water, it would be found more owing to their unwieldiness from want of power than to an actual deficiency of water.

From Nare to Conejo the distance is about fifty-five miles ; the stream becomes narrower and deeper, and runs at times from four and a half to five miles per hour. Hence, to Honda, distant twenty-eight miles, the width of the river is about two hundred and fifty yards, and at several bends, for short distances, the current exceeds six miles. At Guarinó, for a distance of fifty yards, the stream speeds hourly eight miles, and at Quita Palanca, through a stretch of three hundred yards, from six to seven and a half miles ; but as at these last named places the course of the stream is straight, with deep water and ample width, the only obstacle to overcome is the current, which may be easily performed by boats of sufficient power.

From the best of sources and from immediate observation, I have deduced the following estimate of the number of passengers and the amount of cargo passing up and down the Magdalena in the course of a year, with an aggregate expenditure for this transportation at the lowest rates of freight :—

DISTANCE ASCENDING.

150 mls.	fm. Barranquille to Mompoz	"cargas" of 250 lbs.	4,000 at \$1 00	4,000
250 "	" " " Puerto Ocana,	"	2,000 at 1 75	3,500
475 "	" " " Nare,	"	7,000 at 4 00	28,000
558 "	" " " Honda,	"	20,000 at 5 00	100,000
360 Passengers, at \$80,				28,800
				<hr/>
				33,000
				<hr/>
				\$164,300 00

DESCENDING.

DESCENDING				
From Honda to Nare (tobac. and cocoa),	"	2,000 at \$0 50	\$1,000	
" " Ocana "	"	1,000 at 1 50	1,500	
" " Mompoz, "	"	3,000 at 3 00	9,000	
" Ocana and Mompoz to Barranq'le, "	"	3,000 at 1 75	5,250	
" Honda to Barranq'le (tobac. and quina)		27,000 at 4 00	108,000	
360 Passengers, at \$25,	- - - - -	- - - - -	9,000	
		<u>36,000</u>		<u>\$133,750 00</u>

U. S. Currency, \$298,050 00

The following may be allowed as a fair monthly balance-sheet of a steamer carrying 1,000 "cargas," with a draught of three feet of water, and making two voyages per month. This may be performed with ease by a steamer that can, with this load and draught, run fifteen miles an hour in still water:—

DR.	CR.
Wages of officers and crew, \$875 00	From coast to Nare and Honda, 1,600 cargas at \$5, \$8,000 00
Cabin table, \$6 per day, . 180 00	From coast, 30 passengers, at \$80, . 2,400 00
Maintenance of 20 hands at 30c. per day each, . . . 180 00	From Honda to the coast, 2,000 cargas, at \$4 . 8,000 00
Table of 60 passengers for 20 days, 720 00	From Honda to the coast, 30 passengers, at \$25, . 750 00
40 cords of wood per day for 20 days, at \$2 25, . . 1,800 00	
Oil, packing, cordage, &c., 100 00	
Wear and tear on \$50,000 at 20 per cent., . . . 1,000 00	
Balance in favor of steamboat for two voyages in one month, 14,295 00	
(United States currency,) \$19,150 00	(United States currency,) \$19,150 00

[G]

EXTRACT FROM AN ARTICLE IN THE BANKERS' MAGAZINE FOR JANUARY, 1855, page 566.

"THE GOLDEN WEALTH OF NEW-GRANADA.—The attractions of New-Granada are not easily enumerated, for they embrace all the productions common to temperate and tropical regions. Gold has been hitherto exported chiefly in the form of "dust," but large nuggets have been found. The annual production of the Vice-royalty was once estimated at nearly £700,000. The yield of the same ground is now larger. A single copy of a chart of Antioquia, one of the provinces, exists, "Par Jose Manuel Restrepo, 1319," and rectified by A. Leleaux, colonel of engineers in the ser-

vice of Colombia, in 1823. If it were lithographed and published it would re-animate the stock-jobbing world; for it is dotted over with yellow spots, designating gold-findings. We reckoned over 300 of these auriferous corners, and left off, wearied with the work, in regret that gold, so plentiful in some quarters, should be so rare in Britain, and even be made the object of idolatry."

Here follows a vivid description of "Choco," one of the Western Provinces of New Granada. The article thus proceeds:

"But, at this point, although unconnected with the province of Choco, we may add that, on the upper bank of the Amazon, in 1853, several diggers had gained 25 lbs. of gold for each person, by the labor of a few weeks. In another province of New-Granada 6,400 lbs. of gold dust passed through the Post-Office within a comparatively short period. Its value, at £50 per pound, was £320,000. Many silver mines are wrought within the republic. Mines of Cinnabar, probably more important than the auriferous deposits, have been found in Antioquia, in Santa Rosa, and in the mountain of Quindiu. Platina was first discovered in Choco, and its value for chemical purposes is highly appreciated. The salt of New-Granada is unusually pure; and the mines are sufficient to supply South-America for ages to come. Coals have been procured in the province of Bogota, 8000 ft. above the level of the Pacific. Copper ore is wrought for all home consumption, and will yet form an article of export. Ironstone exists in the mountains, and, after the development of coal mines, will be extremely profitable. The emeralds of Peru are proverbial, and yet entirely fictitious. Emeralds have never yet been found in Peru. The emerald mine is 50 miles from Bogota, and it supplies all these precious stones. This unique rock is the only quarry of emeralds in the world. The dust of land is literally gold; and among its stones are diamonds, amethysts, and jacinths."

H

ABSTRACT OF TRANSLATION OF THE OFFICIAL
CHRONICLE OF THE PROVINCE OF CARTHAGENA.

CARTHAGENA, DEC. 14, 1854.

*Circular from the Governor, giving certain particulars relative to
the opening of the Dique Canal.*

The Dique is destined to establish an easy and rapid communication between the River Magdalena and the Atlantic, and this river is the principal fluvial artery of New Granada, as it and its numerous tributaries, bathe with their waters, a very considerable extension of the territory of this republic. And thus it is, that fifteen of our most populous provinces, or what is the same, upwards of a million of our inhabitants, will make through its channel, all their imports and exports.

It must be remarked that the provinces that would avail themselves of the Dique canal for their imports and exports, are precisely those that produce the largest amount of gold, bark, tobacco, and other products that constitute our principal traffic with other nations.

The Dique ought, besides to bind and cement efficaciously, the industrial relations of the said fifteen provinces with those of Choco, Carthagena and the four provinces of the Isthmus of Panama, containing 298,350 inhabitants; so that it is by means of this canal, that their reciprocal commerce must be effected, one of such importance, that its rough value may at the lowest estimate be computed at the cypher of (\$3,000,000) three millions of dollars.

Thus, then, the collective value of national and foreign products that must pass in and out of the dique may rationally be estimated at twenty-five millions of dollars yearly, so that a small toll of one-half per cent (1-2 per cent.), levied on the transit of such products would yield to the owners of the canal, a revenue of (125,000) one hundred and twenty-five thousand dollars a year.

The realization of this most important highway must stimulate powerful-

ly the natural productions, increasing consequently our commerce with foreign nations, and our internal traffic, it is indubitable that the profits will increase progressively, in proportion as the lapse of time will produce as it must produce those logical and necessary phenomena.

. Signed,

RAFAEL NUNEZ.

I

STATEMENT OF MAJOR H. SEARS, LATE OF THE U. S. NAVY.

I resided in the city of Carthagena for about two years—have travelled over during that time a large portion of the interior of New Granada. I consider the climate of Carthagena perfectly healthy. My family were with me a large portion of the time. All were perfectly healthy. I went to New Granada a confirmed invalid, with dysentery, returned to New York perfectly well. I found the interior of the country perfectly healthy. Society in Carthagena good—few foreigners.

The Canal of Carthagena is of immense importance, and when finished, it will take through it all the trade of New Granada. It is the only reliable route to the Atlantic.

The Bay of Carthagena is one of the finest in the world—second only to the bay of Naples.

Cotton—This country will produce finer cotton than the Sea Island.

Sugar-cane—I have seen the cane grow thirteen joints—finer sugar I never saw,—and in abundance.

Rice—Excellent quality, grows without inundation.

Tobacco grows luxuriantly. The Ambelame tobacco I consider as fine as any grown in Cuba. It grows in immense quantities.

Coffee—I have passed over grounds covered with the finest quality of coffee.

Peruvian-bark of superior quality grown in abundance, and forms one of the chief exports.

India Rubber grows in immense abundance—forrests of the finest quality throughout New Granada.

Minerals, Gold, &c.—I consider New Granada richer in gold than California. The province of Antioquia and Choco alone would supply the wants of the world. The country is also very rich in silver, copper, iron, and I believe, in coal.

River Negro—The natives dive down with turtle shells and bring up to the surface, sand, and wash out large quantities of rich gold

N. F. Clitz, Esq., brother-in-law to Major Sears, resident of New York, resided in New Granada two years—was perfectly healthy. Consider the country one of the healthiest in the world. Both gentlemen left New Granada three years since.

J

EXTRACT FROM A PAMPHLET PUBLISHED BY WM. VENDRYES IN LONDON, MAY 1853, ENTITLED
 “STATEMENT ON OATH RESPECTING THE COMPARATIVE FITNESS OF THE PORTS OF CARTHAGENA, SAVANILLA AND SANTA MARTHA, FOR STEAM NAVIGATION TO THE RIVER MAGDALENA.”

PETITION.

SEÑOR JUDGE OF THE CIRCUIT.

CARTHAGENA, 23rd of February, 1853.

I, Henry Vendryes, before you, with the greatest respect, appear and say, that for purposes which concern me, I hope that you will cause to

appear before you, general of the navy, Rafael Tono ; captain of the navy, James Brun ; lieutenant, Jose Maria Palas ; and ensign of frigate Manuel de la Pena ; in order that under their oaths, and according to legal formalities, they do declare their opinion on the following points :—

1st. Their opinion on the present Dique (canal), supposing it navigable for steamers, with respect to this port.

2nd. Their opinion on the Canal de la Pina, with respect to Barranquilla and Savanilla. What is the present state of the last port, and what are its comparative advantages or disadvantages with regard to the port of Carthagena.

3rd. What is the depth of the river Magdalena at its mouths, and what facilities have steamers to go in and out during all the year.

4th. What advantages possess the ports of Santa Martha, Savanilla and Carthagena, relatively to each other, as ports,—the facilities they offer for loading and discharging vessels, to enter and go out, and others.

5th. If the shipment of tobacco, quina, and other produce from the interior of the republic in flatboats and other crafts of the country is attended with more risk from damage, loss of time, &c. than by steamers ; and of this produce sent down for foreign trade from Honda, by way of Barranquilla to Savanilla, will suffer more delays and risks than if they were sent from Honda by way of the canal of the Dique to this port.

6th. Which of the three above-mentioned ports offers more facilities, advantages, and security to trade, for the navigation by steam of the rivers Magdalena and Atrato.

HENRY VENDRYES.

DECREE.

Circuit of Carthagena, 23rd February, 1853.

Let it be done as prayed, the interested party paying the cost.

FORTICH.

MANUEL MARIA CASAS.

DEPOSITION OF JAYME BRUN.

In the city of Carthagena, on the 23rd day of February, appeared, according to citation, Jayme Brun, and having been duly sworn to tell the truth, according to his knowledge, on the questions to be put to him, he did so as follows :—

To the first question,—

That, supposing, the canal navigable, Cartagena is the port most suitable for the intended trade, by means of steamers on the river Magdalena.

To the second question,—

That he does not know practically the Canal de la Pina, but that its utility is evident, when navigable, as a means of communication between Savanilla and Barranquilla. With respect to the remaining part of this question, he says, that it is notorious that the port of Savanilla has this advantage, that supposing the said Canal de la Pina navigable, the boats that go to the interior can, by means of it, proceed directly from Savanilla to the Magdalena: but that its disadvantages are, that it is open to the winds of the third degree (north east), which cause a considerable swell of the sea, and impede the discharging of vessels as long as they last; that vessels have to come to an anchor at a great distance, both from the shallowness of the water, and from the bad state of that port on account of the quantity of ballast thrown into it by vessels, on preparing to take in their cargoes; that, although not one of the principal mouths of the Magdalena, it receives its waters, which, from the floods of the river, cause a constant change in the sands, increasing the “Punta de Culebras,” narrowing the entrance, and forming sand banks, which, not being set down in the charts, endanger vessels. And, finally, that the latter are exposed to whatever pirates or vessels of an enemy that choose to board them. The port of Cartagena, on the contrary, offers a splendid anchorage—it is tranquil, being coast bound on all sides, and nothing can cause any change in it; and the place where vessels anchor is near the custom-house, and is well defended by fortifications. There are, besides, warehouses as secure as can be wished, and the vessels that trade to the interior meet with a smooth sea at all times, the Dique being navigable, directly and immediately, by the latter to Magdalena; for which reasons deponent has stated that it is the best port for that purpose.

To the third question,—

That the depth of the water of the Magdalena, at its mouths, is very variable, and it is only during the calm days of May to July, that they can be approached with facility, which, at other times of the year, is not the case.

To the fourth question,—

That Santa Martha is a port open also to the north-east winds, from which circumstance, during their prevalence, the loading and discharging of vessels is difficult; but at other seasons of the year, it presents no obstacles, on the contrary, many facilities. However, the vessels that leave Santa Martha for the Magdalena, have to run the risk of the bar, where many have been lost; and afterwards they meet with obstacles in the lakes and water courses which are found at the back of the Island of Salamanca, before they enter the river. That during the winds which pre-

vail from November until April, that port offers no security, because the largest vessels have to slip their anchors and sail out of the port; the same difficulty succeeding in the discharging of vessels, from the gusts of wind which are very violent.

To the fifth question,—

In the shipment of merchandise or produce from the interior, no one can doubt that there is more risk of damage and delay in boats and rafts than in steamers, it being clear that if the merchandise and produce be sent by the way of Savanilla and Barranquilla, they will suffer more risk and delay, than if sent by the canal of the Dique to this port; the risk and delay being increased with respect to Santa Martha, on account of the bar, and other obstacles.

To the sixth question,—

As to which of the ports of Santa Martha, Savanilla and Carthagena offers more advantages for a connected navigation of the Magdalena and Atrato, it is enough to consider the respective situations of those ports, to give a preference to Carthagena, because the navigation from Santa Martha is very dangerous abreast of the mouths of the Magdalena, particularly during the prevalence of the winds which blow with an extraordinary force from November to April; and even during the other months, high winds are often observed, because at present there is not the same regularity in the seasons as formerly; whilst, on the other hand, vessels can go from Carthagena to the Atrato all the year round, through smooth seas, the whole of the coast being protected by banks with sufficiency of water, the same as on the return. Not so to Santa Martha, the steamers having to struggle against very high seas occasioned by the shock between the waters of the Magdalena and the ocean, naturally causing a change in the wind; for which reason the steamers of the Royal Mail Company have had to change their course.

Declared to be true, and signed, &c.

JAYME BRUN.

MANUEL FORTICH.

MANUEL MARIA CASAS.

DECLARATION OF DE LA PENA.

In the city of Carthagena, on the 23rd February, 1853, appeared, &c., Manuel de la Peña, who having been duly sworn, &c., and the interrogatories of Mr. H. Vendryes having been read over to him, declared as follows:

To the first.—The same as Jayme Brun.

To the second.—The same as Jayme Brun.

To the third.—The same as Jayme Brun.

To the fourth.

That Santa Martha is also a port open to the winds of the north east, from which circumstance, during their prevalence, the loading and discharging of vessels are difficult, the anchorage being unsafe, because the gusts of wind cause a tremendous rise in the sea, and endangers the transit from the vessel to the beach. The winds which blow from the Nevada are so violent, that it is necessary for vessels to be always ready to put to sea the moment they begin to drive from their anchors; and it often happens that even when made fast to the shore, they tear up the anchors and strong posts to which the hawsers are fastened, sometimes breaking the latter asunder. In a word, sleep is unknown in that port for the reasons stated. Moreover, the vessels that sail from the Magdalena have to encounter the dangers of the bar, where many have been lost: and afterwards they meet with many obstacles in the lagoons and ditches that are found at the back of the Island of Salamanca, until they reach the river.

To the fifth.—The same as Captain Brun.

To the sixth.—The same as Captain Brun, with this addition:

The Port of Savanilla presents the same difficulties with regard to the navigation to the Atrato. Suffice it to say, that the general opinion with respect to the port of Carthagena, admitted by sea-faring men of experience, is, that it is the best in South America; that its proximity to the Atrato and the Dique, its openings into the Estero and by the Boca Chica, the smoothness of its waters until the entrance to the Darien, for there is no river that causes them to swell and rage like those between Carthagena and Santa Martha; and on the other hand, the abundance of provisions between Carthagena and the coast to westward; all these circumstances invite and give security to property, and to the lives of those who navigate to the westward, from Savanilla and Santa Martha, at all times of the year. Carthagena may, besides, offer more advantages to commerce, when the artificial reef which closes the canal between Tierra Bomba and the point of Boca Grande will be destroyed, because a great saving of time and distance will take place on entering into the harbor. Besides this, the Steamers intended to navigate from Santa Martha and Savanilla to the Atrato, must necessarily draw more water than those intended for the Magdalena, because the former must offer more resistance to the heavy seas which they will encounter between Carthagena and Santa Martha.

Duly sworn to, &c.,
MANUEL D. FORTICH.

MANUEL DE LA PENA.
MANUEL M. Casas,
Secreta^r.

DECLARATION OF JOSE MARIA PALAS.

In the city of Carthagena, on the 23rd February, 1853, appeared, &c., Jose Maria Palas, who having been duly sworn, and the interrogatories of Mr. H. Vendryes having been read over to him, declared as follows:

To the first.—The same as the preceeding.

To the second.—That he knows practically the Canal de la Peña—that it is nothing more than a ditch, and that he ventures to predict, that notwithstanding the large sums that may be spent to deepen it and render it navigable, the smallest rise of the Magdalena will fill it and block it up, and it will not show on the map more than a simple line of water, navigable only on certain occasions and through very great efforts. Thus, he considers that it will never be permanently navigable for the steamers that may be put on that river—that the defects and inconveniences of the port of Savanilla, &c. [The same as Captain Brun.]

To the third.—That the depth of water at the mouth of the Magdalena is very variable, but that it is never more than six to eight feet, it sometimes happening that the water is so shallow that boats of the country, not drawing more than three to four feet of water, run aground, and the approach is only practicable during the calm days, from May to July, which is not usually the case in other months.

To the fourth.—The same as Captain Brun.

To the fifth.—The same as Captain Brun, with this addition;—It is also evident that the steamers proper for the navigation of the Magdalena, from their small draught, could not traverse that extent of rough sea, whilst from Carthagena they can navigate to the Atrato, from the smoothness of the sea between that port and the Gulf of Darien.

Duly sworn to, &c.,

JOSE M. PALAS.

MANUEL D. FORTICH.

MANUEL MARIA CASAS,

Secretary.

DECLARATION OF GENERAL TONO.

CARTHAGENA, 23RD FEB., 1853.

Certified and sworn to under his word of honor, (he being exempt, from his high grade, from swearing in the usual way).

To the first question.—The same as Captain Brun.

To the second question.—The same as Captain Brun.

To the third question.—The same as Captain Brun.

To the fourth question.—The same as Captain Brun.

To the fifth question.—The same as Captain Brun.

To the sixth question.—The same as Captain Brun and Manuel de la Pena, with this addition :—That the steamers which are to be put on the river Magdalena, cannot traverse from Santa Martha and Savanilla, to the Atrato, from their little draught, and it would be necessary to employ for that purpose vessels of a larger tonage; whilst from this port, the steamers that may come down the river from Honda, through the canal of the Dique, can navigate to the Atrato, from the circumstance already stated, that they will only meet with smooth seas at all seasons of the year.

RAFAEL TONO.

MANUEL MARIA CASAS, Secretary.

CARTHAGENA, 23D FEB., 1853.

The undersigned, Governor of the Province of Carthagená, certifies that Doctors Manuel Dioniso Fortich, and Manuel Maria Casas, who have subscribed and certified the preceeding declarations, are at present in the exercise of their respective functions: the first as Judge of this Circuit, and the second as secretary to the same.

JUAN JOSE NIETO.

For the Secretary, the Second Officer.

LUIS M. DE OCHOA.

K

EXTRACT OF A LETTER DATED CARTHAGENA 24th. May, 1855, TO H. VENDRYES, Esq.

The bar at the mouth of the Magdalena is fast increasing, so that the Magdalena river forces much water through the Dique, and before your return, nature will have done the greatest part of your work.

If the grass could be removed soon, to give free vent to the water, I have no doubt, that we could navigate the Canal during several months.

A great want of Steamers is felt by every one. The country is at a stand still, no traffic can be dispatched from any place. In Honda alone are at present above 10,000 cargas, at \$7 per carga, making a total of \$70,000, not speaking of Ambalema, Bogota, etc., where you find much more, during October and November, the river is very high and easy, you push a steamer through the Dique into the Magdalena for the accommodation of passengers and freight.

When Chief Engineer of the Calamar; a boat of only 250 cargas, we made many times \$3,000, clear in one trip, taking carga down river for \$3.50. What would a boat of 1000 cargas not be able to do. With 1000 cargas down river is made a gain of \$7,000,—time occupied, only two and a half days.



L

STATEMENT OF HENRY W. DONOHUE, FORMERLY A RESIDENT OF NEW YORK CITY.

Was engineer of the steamer New Granada, owned by the Santa Martha Company for nearly two years. Plied between Barranquilla and Honda on the Magdalena river.

Magdalena river. Width of this river at Calamar, one mile and a half. Depth and width and distance from Calamar to Honda as follows: From Calamar to mouth of the Cauca, the junction with the Magdalena,—about 90 miles, average depth of water, 12 feet, no place less than eight feet in dry season.

From mouth of Cauca river to Banco (by Mompo) 75 miles; depth of water, four feet, dry season. No snags.

Mompox has 12,000 inhabitants; indirect route to Banco, but much deeper water dry season by Cauca river through Cano de Lobo to Magdalena river, 51 miles. No snags, and any quantity of water. From Cauca river through the Cano de Lobo to Banco, on the Magdalena again, from 55 to 56 miles. Banco has a population of 1000. From Banco, to Port Nationale, or "Port Ocano" 45 miles. Width of river, half a mile, depth of water this distance 5 feet, dry season; no snags to this point.

Port Ocano. This is a beautiful city of about 20,000 inhabitants, buildings built of stone and brick, *climate* cool and agreeable, this place is quite a large tobacco depot. From Port Ocano to San Pablo or Saint Paul, distance 66 miles. No snags, until about 6 miles from Saint Paul, a very few, all can be avoided by keeping in main channel—lowest depth dry season, 5 feet. Population of Saint Paul 500, width of river at this point, half a mile.

From Saint Paul to San Bartholomo, or Saint Bartholamew, 102 miles; lowest depth river during the year, 4 1-2 feet, not interrupted by snags. Width of river at this place, one mile.

Saint Bartholamew has a population of 1000. This place receives a great deal of *gold dust* from the mines of the province of Antioquia.

From Saint Bartholamew to Nare 60 miles, lowest depth water dry weather, four and a half feet not interrupted by snags, width of river at this place, one quarter of a mile.

Nare, has a population of 1000. This place is the receiving depot of goods and merchandize for the province of Antioquia. Gold is also shipped from this point—quite a depot for passengers from Antioquia. From Nare to Buena Vista 30 miles, lowest depth of water dry season, 4 1-2 feet, width of river at this place, about 100 feet, not many snags.

Buena Vista has a population of 100. Gold dust is found here and adjacent waters.

The *Rio Meal* or river of molasses, empties into the Magdalena about 9 miles from Buena Vista. Negroes and natives *dive down* this river with *turtle shells*, and bring up quantities of sand in which are found very rich gold; the depth of this river, is 9 feet. The water perfectly clear, you can see the bottom distinctly. The water is excellent to drink, being very cool; and all the steamers fill up their casks of water at this place.

River Negro empties into the Magdalena, about 100 yards above Buena Vista. This river is exceedingly rich in gold washings, the gold is of the purest kind, the depth of this river in dry season does not exceed two feet.

From Buena Vista to Conejo 27 miles, lowest depth, 4 feet, dry season, width of river one hundred yards, some snags, about eighteen

miles from Buena Vista, and at Eldorado, 19 1-2 miles from Buena Vista, there are some large rocks, these with care, can be avoided, as there is a good channel some 35 feet between them.

"*Conejo*" was formerly the depot of the Santa Martha steamboat company. From Conejo, to Honda, 24 miles, lowest depth of water, 4 feet. Width of river 100 yards. About 300 yards from Honda, you commence to ascend the only rapids of any consequence on the river, of about twelve feet fall, in 300 yards.

Honda has a population of about 9,000. The buildings are built principally of stone, the *Climate* beautiful, night and morning very delightful and cool, this is the present terminus of steamboat navigation. Passengers land at this place for Bogota, the capital of the Republic.

Ambalema is distant above Honda about 30 miles. This is the largest tobacco and Peruvian bark depot in New Granada. The best tobacco grows in the province of Ambelema. The bark and tobacco is shipped on flat boats, rafts, and champans, to Honda, from thence, by steamers, &c. &c.

The Magdalena River is studded on either side with mahogany, cedar, and oak, of a superior kind. Immense quantities of *Lignum-vitie* grows on the opposite side of Calamar. Mahogany superior to any in the world grows in New Granada. The banks of the river at Calamar, are about 13 feet high.

The Lock at the mouth of the canal at Calamar is merely a guard lock, to prevent the river from washing away the canal; ordinary tines, river, same level as the canal.

Shipping or imports consist of iron and dry-goods. The steamer New Granada cleared in six months on freight and passengers over \$24,000, after paying all expenses.

Passengers.—About 1500 to 2000 travel on this river during the year.

Price of passage from Barranquilla—about 60 miles below Calamar—to Honda, \$100.

Steamers New Granada and Isabel draw, the former 4 feet of water, and the latter some 5 feet.

Coal of a very excellent kind is found in abundance at Barranca Burmagh, distant 325 miles from or above Calamar. Cannel coal, and good coal at Conejo, about 24 miles from Honda. I have used the latter for forging purposes, and never used better coal in my life.

Cotton.—I have seen cotton growing in New Granada of a very superior quality.

Coffee grows in large quantities, and of a superior quality.

Cocoa.—Large plantations of cocoa in the valley of the Magdalena, excellent quality.

Sugar Cane grows more luxuriantly than any I have ever seen elsewhere.

Rice grows without inundation, profusely.

India rubber.—Large forests of the India rubber tree throughout New Granada.

Climate.—I enjoyed as good health while navigating the waters of the Magdalena, and during my residence in New Granada, as I ever enjoyed in the city of New York. I consider the climate of New Granada, except the province and isthmus of Panama, as healthy as any country I ever lived in or visited.





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